

KIM GEBRUIKERS CLUB  
 NEDERLAND  
 2DE JAARGANG NR. 8  
 20 AUGUSTUS 1979

DE

KIM

KENNER

8

U12

U11

U10

U9

U8

U7

U6

U5

U14

U13

U7

R30  
R29  
R28  
R27

R32

R18 R21 R19 R22 R20 R23 R24 R25 R26 R27

01 02 03 04 05 06

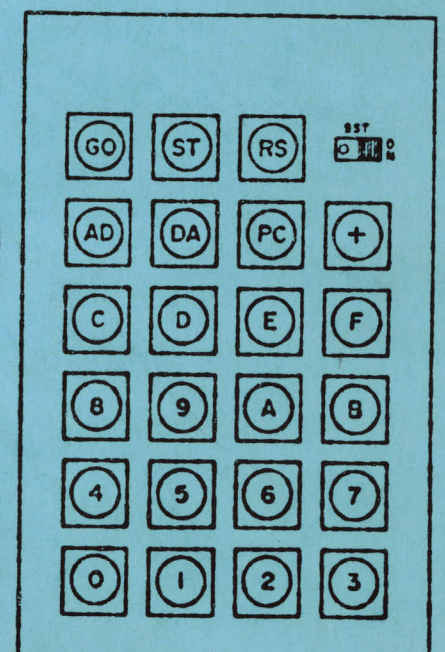
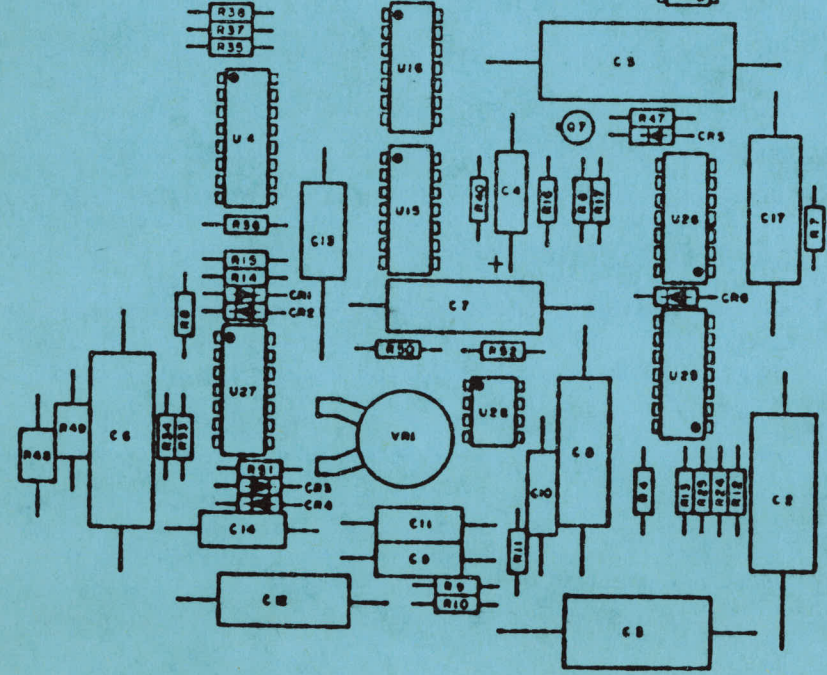
U18 U19 U20 U21 U22 U23

U24

C17

C1

R33



# KIM

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TARGET (1-column)		Nummer:
		Blad: 1 van 5
<div style="text-align: right; margin-bottom: 20px;"> Auteur:  Fer Weber  Gebr. Wienerstr. 139  5913 XS Venlo  Holland </div> <p>Bij dit spelletje worden de horizontale streepjes van het KIM-display gebruikt als bewegend doel. Na starten gaat op de bovenste lijn een streepje lopen van links naar rechts. Toets 3 wordt gebruikt als schietknop. Geschoten wordt op digit 4 van het display.</p> <p>Bij raak verdwijnt het streepje. Bij mis komt er een streepje bij. Maximaal dus drie streepjes onder elkaar.</p> <p style="text-align: center;">.....</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> z-page use </div> <div style="width: 65%;"> <pre> 0000 SEGPTR =segmentpointer 0001 DIGPTR =digitpointer 0002 SPEED 0003 SEG1  =segmentcode 1 0004 SEGOF1 =segment off 0005 SEG2 0006 SEGOF2 0007 SEG3 0008 SEGOF3 0009 MESPT1 =messagepointer 1 000A MESPT2 000B MESPT3 000C MESPT4 000D MESPT5 000E CODEST =segmentcode store 000F REPEAT =repeats message 0010 TEMPX  =(not used) 0011 LOOPCO =loopcounter  0200 D8      START CLD      binary mode 0201 A9 00    LDA imm      initialization 0203 85 04    STA SEGOFF1 0205 85 06    STA SEGOFF2 0207 85 08    STA SEGOFF3 0209 A9 03    LDA imm 020B 85 00    STA SEGPTR 020D A9 03    LDA imm 020F 85 0F    STA REPEAT 0211 A9 80    LDA imm 0213 85 02    STA SPEED 0215 A9 81    LDA imm 0217 85 03    STA SEG1 0219 A9 C1    LDA imm 021B 85 05    STA SEG2 021D A9 C9    LDA imm </pre> </div> </div>		
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TARGET (1-column)				Nummer:
				Blad: 2 van 5
021F 85 07		STA SEG3		
0221 A9 3B		LDA imm		
0223 85 09		STA MESPT1		
0225 A9 41		LDA imm		
0227 85 0A		STA MESPT2		
0229 A9 47		LDA imm		
022B 85 0B		STA MESPT3		
022D A9 4D		LDA imm		
022F 85 0C		STA MESPT4		
0231 A9 53		LDA imm		
0233 85 0D		STA MESPT5		
0235 A9 07	STARTC	LDA imm	initialize digitpointer	
0237 85 01		STA DIGPTR		
0239 E6 01	CONTIN	INC DIGPTR	next digit	
023B E6 01		INC DIGPTR		
023D A5 01		LDA DIGPTR		
023F C9 15		CMP imm	digit "7"?	
0241 F0 F2		BEQ STARTC		
0243 A6 00	TOSHOW	LDX SEGPTR		
0245 B5 00		LDA z-p,X	get segmentcode	
0247 85 0E		STA CODEST	and store	
0249 20 54 02	LITEUP	JSR SHOW		
024C A9 00		LDA imm		
024E 8D 42 17		STA abs	digit off	
0251 4C 74 02		JMP ANYKEY		
0254 A9 7F	SHOW	LDA imm		
0256 8D 41 17		STA abs	padd = 1	
0259 A5 01		LDA DIGPTR		
025B 8D 42 17		STA abs	digit on	
025E A5 0E		LDA CODEST		
0260 8D 40 17		STA abs	segments on	
0263 A0 20		LDY imm	and wait	
0265 88	LOOP	DEY		
0266 D0 FD		BNE LOOP		
0268 60		RTS		
0269 A2 80	PAUSE	LDX imm		
026B A0 FF	LOOP1	LDY imm		
026D 88	LOOP2	DEY		
026E D0 FD		BNE LOOP2		
0270 CA		DEX		
0271 D0 F8		BNE LOOP1		
0273 60		RTS		
0274 20 40 1F	ANYKEY	JSR KEYIN		
0277 20 6A 1F		JSR GETKEY		
027A C9 15		CMP imm	no key?	
027C D0 17		BNE GOKEY		
027E C6 02	NOKEY	DEC SPEED		
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TARGET (1-column)			Nummer:
			Blad: 3 van 5
0280 D0 C7		BNE LITEUP	
0282 A9 80		LDA imm	restore <u>speed</u>
0284 85 02		STA SPEED	
0286 A5 00		LDA SEGPTR	
0288 4A		LSR acc	segx or segofx?
0289 90 05		BCC NEXDIG	
028B E6 00		INC SEGPTR	
028D 4C 43 02		JMP TOSHOW	
0290 C6 00	NEXDIG	DEC SEGPTR	
0292 4C 39 02		JMP CONTIN	
0295 C9 13	GOKEY	CMP imm	key "GO"?
0297 D0 06		BNE KEY3	
0299 20 69 02		JSR PAUSE	
029C 4C 00 02		JMP START	
029F C9 03	KEY3	CMP imm	key "3"?
02A1 D0 42		BNE ILLKEY	no, then illegal key
02A3 20 69 02		JSR PAUSE	
02A6 A5 01		LDA DIGPTR	
02A8 C9 0F		CMP imm	also digit "4"?
02AA D0 0E		BNE MISS	
02AC A5 00		LDA SEGPTR	
02AE C9 03		CMP imm	seg1?
02B0 F0 54		BEQ WIN	
02B2 C9 05		CMP imm	seg2?
02B4 F0 3D		BEQ HIT	
02B6 C9 07		CMP imm	seg3?
02B8 F0 39		BEQ HIT	
02BA A5 00	MISS	LDA SEGPTR	
02BC 48		PHA	save segmentpointer on stack
02BD A6 09		LDX MESPT1	
02BF 20 12 03		JSR MESSHO	
02C2 68	MISSCO	PLA	return segmentpointer
02C3 85 00		STA SEGPTR	
02C5 E6 00		INC SEGPTR	
02C7 E6 00		INC SEGPTR	
02C9 A5 00		LDA SEGPTR	
02CB C9 09		CMP imm	lose?
02CD F0 07		BEQ LOSE	
02CF C9 0A		CMP imm	lose?
02D1 F0 03		BEQ LOSE	
02D3 4C 35 02		JMP STARTC	
02D6 A6 0D	LOSE	LDX MESPT5	
02D8 20 12 03		JSR MESSHO	
02DB C6 0F		DEC REPEAT	
02DD D0 F7		BNE LOSE	
02DF 20 69 02		JSR PAUSE	
02E2 4C 00 02		JMP START	
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TARGET (1-column)			Nummer:
			Blad:
			4 van 5
<pre> 02E5 A5 00      ILLKEY LDA SEGPTR 02E7 48          PHA          save segmentpointer on stack 02E8 A6 0B          LDX MESPT3 02EA 20 12 03     JSR MESSHO 02ED 20 69 02     JSR PAUSE 02F0 4C C2 02     JMP MISSCO  02F3 A5 00      HIT  LDA SEGPTR 02F5 48          PHA          save segmentpointer on stack 02F6 A6 0A          LDX MESPT2 02F8 20 12 03     JSR MESSHO 02FB 68          HITCON PLA    return segmentpointer 02FC 85 00          STA SEGPTR 02FE C6 00          DEC SEGPTR 0300 20 69 02     JSR PAUSE 0303 4C 35 02     JMP STARTC  0306 A6 0C      WIN  LDX MESPT4 0308 20 12 03     JSR MESSHO 030B C6 0F          DEC REPEAT 030D D0 F7          BNE WIN 030F 4C 00 02     JMP START  0312 A9 80      MESSHO LDA imm    initialize loopcounter 0314 85 11          STA LOOPCO 0316 A9 07      DIGSTA LDA imm    initialize digitpointer 0318 85 01          STA DIGPTR 031A BD 0B 03     SEGSTA LDA abs,X  get segmentcode 031D 85 0E          STA CODEST 031F E6 01          INC DIGPTR    next digit 0321 E6 01          INC DIGPTR 0323 A5 01          LDA DIGPTR 0325 C9 15          CMP imm      digit "7"? 0327 F0 0C          BEQ MESSCO 0329 20 54 02     SRSHOW JSR SHOW 032C A9 00          LDA imm      segments off 032E 8D 40 17     STA abs 0331 E8          INX 0332 4C 1A 03     JMP SEGSTA  0335 CA CA CA     DEX DEX DEX return Xregister to initial 0338 CA CA CA     DEX DEX DEX state 033B C6 11          DEC LOOPCO 033D D0 04          BNE AGAIN 033F 20 69 02     JSR PAUSE 0342 60          RTS 0343 4C 16 03     AGAIN JMP DIGSTA </pre>			
<p>messages in Dutch:</p> <pre> 0346 80 F1 BF BE F8 80 034C 80 9E BE 86 ED F8 </pre>			
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TARGET (1-column)

Nummer:

Blad:

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0352 80 F1 BF F9 86 80  
0358 80 F6 BF F9 D0 F7  
035E ED BE F1 F1 86 F9

-----e-----

alternative messages in English:

0346 B7 BF 80 F4 86 F8  
034C 80 F4 86 F8 80 80  
0352 F1 BF BE B8 80 80  
0358 F6 9C D0 D0 F7 EE  
035E ED F8 9C F3 84 DE

-----e-----

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TARGET (6-column)		Nummer:																																																													
		Blad: 1 van 8																																																													
<p>Auteur: Fer Weber Gebr. Wienerstr. 139 5913 XS Venlo Holland</p> <p>Nadat TARGET 1-column draaiend was gekregen, dacht ik het even uit te breiden tot alle kolommen van het KIM-display.... Nou, mooi mis! Het werd een heel nieuw opgezet programma. Nu moest alles dat op het display komt gemultiplexed worden. Verder moest in het geheugen een "speelveld" (STATE) gemaakt worden waarin alle veranderingen gepleegd worden en waaruit de gegevens voor het display gehaald worden (SEGST). Nu ik toch bezig was werden er maar meteen twee spelletjes ineen gedraaid: zowel een "uit"schiet- als een "aan"schietspelletje. Verder werd er nu voor gezorgd dat pas na het loslaten van een toets het programma wordt vervolgd.</p> <p>Na het starten van het programma komt nu de vraag "a of b" op het display. Men kan nu met toets "A" kiezen voor het spelletje "uit"schieten, of met toets "B" voor het spelletje "aan"schieten. Schietknop is weer toets "3" en schietdoel is ook weer digit 4.</p> <p>Spel A: winst als alle streepjes uit, dus uitschieten van aan-streepjes op digit 4.</p> <p>Spel B: winst als alle streepjes aan, dus aanschieten van uit-streepjes op digit 4. Bv raak schieten op een kolom met al drie streepjes aan levert verlies op.</p> <p>.....</p> <p>z-page use</p> <table><tr><td>0000</td><td>DIGIPT</td><td>=digitpointer</td></tr><tr><td>0001</td><td>SEGMP</td><td>=segmentpointer</td></tr><tr><td>0002</td><td>STATPT</td><td>=statepointer</td></tr><tr><td>0003</td><td>STATST</td><td>=state store</td></tr><tr><td>0004</td><td>LOOPCO</td><td>=loopcounter</td></tr><tr><td>0005</td><td>REPEST</td><td>=repeat store</td></tr><tr><td>0006</td><td>ONOFST</td><td>=on/off store</td></tr><tr><td>0007</td><td>OFFPTR</td><td>=offpointer</td></tr><tr><td>0008</td><td>MESPT1</td><td>=messagepointer 1</td></tr><tr><td>0009</td><td>MESPT2</td><td></td></tr><tr><td>000A</td><td>MESPT3</td><td></td></tr><tr><td>000B</td><td>MESPT4</td><td></td></tr><tr><td>000E</td><td>PLAYST</td><td>=play a or b store</td></tr><tr><td>000F</td><td>TEMPPL</td><td>=temporary store play a or b</td></tr><tr><td>0010</td><td>SEGST1</td><td>=segmentcode store, digit 1</td></tr><tr><td>0011</td><td>SEGST2</td><td></td></tr><tr><td>0012</td><td>SEGST3</td><td></td></tr><tr><td>0013</td><td>SEGST4</td><td></td></tr><tr><td>0014</td><td>SEGST5</td><td></td></tr><tr><td>0015</td><td>SEGST6</td><td></td></tr></table>				0000	DIGIPT	=digitpointer	0001	SEGMP	=segmentpointer	0002	STATPT	=statepointer	0003	STATST	=state store	0004	LOOPCO	=loopcounter	0005	REPEST	=repeat store	0006	ONOFST	=on/off store	0007	OFFPTR	=offpointer	0008	MESPT1	=messagepointer 1	0009	MESPT2		000A	MESPT3		000B	MESPT4		000E	PLAYST	=play a or b store	000F	TEMPPL	=temporary store play a or b	0010	SEGST1	=segmentcode store, digit 1	0011	SEGST2		0012	SEGST3		0013	SEGST4		0014	SEGST5		0015	SEGST6	
0000	DIGIPT	=digitpointer																																																													
0001	SEGMP	=segmentpointer																																																													
0002	STATPT	=statepointer																																																													
0003	STATST	=state store																																																													
0004	LOOPCO	=loopcounter																																																													
0005	REPEST	=repeat store																																																													
0006	ONOFST	=on/off store																																																													
0007	OFFPTR	=offpointer																																																													
0008	MESPT1	=messagepointer 1																																																													
0009	MESPT2																																																														
000A	MESPT3																																																														
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TARGET (6-column)				Numer:
				Blad:
				2 van 8
<pre> 0016 STATE1 =state of playing field 0017 STATE2 0018 STATE3 0019 STATE4 001A STATE5 001B STATE6 001C STATE7 001D STATE8 001E STATE9 001F STATEA 0020 STATEB 0021 KEYSTO =temporary key store  0030 20 40 1F INKEY JSR KEYIN  this is subroutine that waits 0033 20 6A 1F      JSR GETKEY till key is released 0036 85 21          STA KEYSTO 0038 C9 15          CMP imm    no key? 003A F0 09          BEQ TORTS 003C 20 6A 1F INKEYC JSR GETKEY 003F C5 21          CMP KEYSTO 0041 F0 F9          BEQ INKEYC 0043 A5 21          LDA KEYSTO 0045 60            TORTS RTS  0046 A2 0B          ISTATE LDX imm  this is subroutine that fills 0048 95 15          FSTATE STA z-p,X STATE1 to STATEB in page 0 004A CA            DEX          with value in accumulator 004B D0 FB          BNE FSTATE 004D 60            RTS  004E 20 65 00 MESCON JSR PAUSE 0051 20 A0 03      JSR MESSHO 0054 A5 04          LOOPC LDA LOOPCO get loopcounter 0056 F0 08          BEQ REPEAT 0058 A6 01          LDX SEGMPPT get segmentpointer 005A 20 6D 03      JSR DIGSTA 005D 4C 54 00      JMP LOOPC 0060 C6 05          REPEAT DEC REPEAT 0062 D0 EA          BNE MESCON 0064 60            RTS  0065 A2 80          PAUSE LDX imm 0067 A0 FF          AA    LDY imm 0069 88            A      DEY 006A D0 FD          BNE A 006C CA            DEX 006D D0 F8          BNE AA 006F 60            RTS  0070 A4 02          TOSHOW LDY STATPT get statepointer 0072 A6 01          LDX SEGMPPT get segmentpointer </pre>				
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TARGET (6-column)				Nummer:
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0074 20 57 03		JSR FILL		
0077 A6 01	SEGSTA	LDX SEGMP	get segmentpointer	
0079 20 63 03		JSR SHOW		
007C 60		RTS		
0080 A9 0F	RSTART	LDA imm	initialize variables z-p	
0082 85 01		STA SEGMP		
0084 A9 1A		LDA imm		
0086 85 03		STA STATST		
0088 A9 F9		LDA imm		
008A 85 07		STA OFFPTR		
008C A9 E1		LDA imm		
008E 85 08		STA MESPT1		
0090 A9 E7		LDA imm		
0092 85 09		STA MESPT2		
0094 A9 ED		LDA imm		
0096 85 0A		STA MESPT3		
0098 A9 F3		LDA imm		
009A 85 0B		STA MESPT4		
009C A9 80		LDA imm		
009E 20 46 00		JSR ISTATE		
00A1 A9 81		LDA imm		
00A3 85 1B		STA STATE6		
00A5 A9 0A		LDA imm		
00A7 85 05		STA REPEST		
00A9 60		RTS		
0200 20 80 00	START	JSR RSTART	start and initialize	
0203 EA EA EA		NOP NOP NOP		
0206 A5 08	PLAYAB	LDA MESPT1	get messagepointer 1	
0208 85 02		STA STATPT	to statepointer	
020A 20 A4 03		JSR MESHOC		
020D 20 30 00	ANYKEY	JSR INKEY		
0210 C9 15		CMP imm	no key?	
0212 D0 12		BNE KEYA		
0214 A5 04	CONTIN	LDA LOOPCO	get loopcounter	
0216 F0 08		BEQ BACK		
0218 A6 01		LDX SEGMP	get segmentpointer	
021A 20 6D 03		JSR DIGSTA		
021D 4C 0D 02		JMP ANYKEY		
0220 20 77 00	BACK	JSR SEGSTA		
0223 4C 0D 02		JMP ANYKEY		
0226 C9 0A	KEYA	CMP imm	key A?	
0228 D0 05		BNE KEYB		
022A 85 0E		STA PLAYST	store play a	
022C 4C 35 02		JMP ONCONT		
022F C9 0B	KEYB	CMP imm	key B?	
0231 D0 E1		BNE CONTIN		
0233 85 0E		STA PLAYST	store play b	
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TARGET (6-column)				Nummer:
				Blad: 4 van 8
0235 A5 03	ONCONT	LDA STATST	get state store	
0237 C9 14		CMP imm	done?	
0239 D0 02		BNE DONE		
023B A9 1A		LDA imm	statepointer to start	
023D 85 03	DONE	STA STATST	to state store	
023F 85 02		STA STATPT	and to statepointer	
0241 A9 01		LDA imm	initialize on	
0243 85 06		STA ONOFST	to on/off store	
0245 20 70 00		JSR TOSHOW		
0248 20 30 00	KEY	JSR INKEY		
024B C9 15		CMP imm	no key?	
024D D0 24		BNE GOKEY		
024F A5 04		LDA LOOPCO	get loopcounter	
0251 F0 08		BEQ ONOFF		
0253 A6 01		LDX SEGMP	get segmentpointer	
0255 20 6D 03		JSR DIGSTA		
0258 4C 48 02		JMP KEY		
025B A5 06	ONOFF	LDA ONOFST	get on/off	
025D F0 D6		BEQ ONCONT		
025F A5 02		LDA STATPT	get statepointer	
0261 85 03		STA STATST	to state store	
0263 C6 03		DEC STATST	- 1	
0265 A5 07		LDA OFFPTR	get offpointer	
0267 85 02		STA STATPT	to statepointer	
0269 A9 00		LDA imm	initialize off	
026B 85 06		STA ONOFST	to on/off store	
026D 20 A4 03		JSR MESHOC		
0270 4C 48 02		JMP KEY		
0273 C9 13	GOKEY	CMP imm	key GO?	
0275 D0 03		BNE KEY3		
0277 4C 00 02		JMP START		
027A C9 03	KEY3	CMP imm	key 3?	
027C D0 1A		BNE ILLKEY	no, therefore illegal key	
027E A5 13		LDA SEGST4	digit 4 lit?	
0280 D0 43		BNE HIT		
0282 A5 0E	MISS	LDA PLAYST	no, get play	
0284 85 0F		STA TEMPPL	store temporarily	
0286 C9 0A		CMP imm	play A?	
0288 D0 04		BNE MISSC		
028A A9 0B		LDA imm	yes, change to play B	
028C 85 0F		STA TEMPPL	and store temporarily	
028E A4 03	MISSC	LDY STATST	get state store	
0290 A6 01		LDX SEGMP	get segmentpointer	
0292 20 57 03		JSR FILL		
0295 4C C9 02		JMP HITCON		
0298 A5 09	ILLKEY	LDA MESPT2	get messagepointer 2	
029A 85 02		STA STATPT	to statepointer	
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029C 20 4E 00		JSR MESCON		
029F A9 0A		LDA imm	restore repeat	
02A1 85 05		STA REPEST		
02A3 A5 0E		LDA PLAYST	get playstore	
02A5 C9 0A		CMP imm	play A?	
02A7 D0 08		BNE ILCONT		
02A9 A9 C9		LDA imm	initialize 3segs	
02AB 20 46 00		JSR ISTATE		
02AE 4C 35 02		JMP ONCONT		
02B1 A9 81	ILCONT	LDA imm	initialize 1segs	
02B3 20 46 00		JSR ISTATE		
02B6 A9 80		LDA imm	initialize 0segs (blank)	
02B8 85 17		STA STATE2	fill even states	
02BA 85 19		STA STATE4		
02BC 85 1B		STA STATE6		
02BE 85 1D		STA STATE8		
02C0 85 1F		STA STATEA		
02C2 4C 35 02		JMP ONCONT		
02C5 A5 0E	HIT	LDA PLAYST	get play	
02C7 85 0F		STA TEMPPL	store temporarily	
02C9 A5 0F	HITCON	LDA TEMPPL		
02CB C9 0A		CMP imm	play A?	
02CD D0 36		BNE B3SEGS		
02CF A5 13		LDA SEGST4	yes, what's in digit 4?	
02D1 C9 80		CMP imm	0segs (blank)?	
02D3 F0 10		BEQ MAKE1S		
02D5 C9 81		CMP imm	1segs?	
02D7 D0 08		BNE A2SEGS		
02D9 A0 80		LDY imm	yes, load 0segs (blank)	
02DB 20 B7 03		JSR STATCH	and change playing field	
02DE 4C F5 02		JMP ALLBLA	check if all blanks	
02E1 C9 C1	A2SEGS	CMP imm	2segs?	
02E3 D0 08		BNE A3SEGS		
02E5 A0 81	MAKE1S	LDY imm	yes, load 1segs	
02E7 20 B7 03		JSR STATCH	and change playing field	
02EA 4C 35 02		JMP ONCONT		
02ED A0 C1	A3SEGS	LDY imm	load 3segs	
02EF 20 B7 03		JSR STATCH	and change playing field	
02F2 4C 35 02		JMP ONCONT		
02F5 A2 15	ALLBLA	LDX imm	load state 1 -1	
02F7 E8	LOOPA	INX		
02F8 E0 21		CPX imm	all states done?	
02FA F0 45		BEQ WIN		
02FC B5 00		LDA z-p,X	no, get state	
02FE C9 80		CMP imm	0segs (blank)?	
0300 F0 F5		BEQ LOOPA		
0302 4C 35 02		JMP ONCONT		
Datum ingang:		Vervangt:		d.d.:
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				Ref.: Fer Weber

# KIM

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TARGET (6-column)				Nummer:
				Blad: 6 van 8
0305 A5 13	B3SEGS	LDA SEGST4	what's in digit 4?	
0307 C9 C9		CMP imm	3segs?	
0309 F0 40		BEQ LOSE		
030B C9 C1		CMP imm	2segs?	
030D D0 0E		BNE B1SEGS		
030F A0 C9		LDY imm	load 3segs	
0311 20 B7 03		JSR STATCH	and change playing field	
0314 A5 0E		LDA PLAYST	get play	
0316 C9 0A		CMP imm	play A?	
0318 D0 17		BNE ALL3S	check if all segments lit	
031A 4C 35 02		JMP ONCONT		
031D C9 81	B1SEGS	CMP imm	1segs?	
031F D0 08		BNE B0SEGS		
0321 A0 C1		LDY imm	load 2segs	
0323 20 B7 03		JSR STATCH	and change playing field	
0326 4C 35 02		JMP ONCONT		
0329 A0 81	B0SEGS	LDY imm	load 1segs	
032B 20 B7 03		JSR STATCH	and change playing field	
032E 4C 35 02		JMP ONCONT		
0331 A2 15	ALL3S	LDX imm	load state 1 -1	
0333 E8	LOOPB	INX		
0334 E0 21		CPX imm	all states done?	
0336 F0 09		BEQ WIN		
0338 B5 00		LDA z-p,X	no, get next state	
033A C9 C9		CMP imm	3segs?	
033C F0 F5		BEQ LOOPB		
033E 4C 35 02		JMP ONCONT		
0341 A5 0A	WIN	LDA MESPT3	get messagepointer 3	
0343 85 02		STA STATPT	to statepointer	
0345 20 4E 00		JSR MESCON		
0348 4C 00 02		JMP START		
034B A5 0B	LOSE	LDA MESPT4	get messagepointer 4	
034D 85 02		STA STATPT	to statepointer	
034F 20 4E 00		JSR MESCON		
0352 4C 00 02		JMP START		
0357 C8	FILL	INY	statepointer +1	
0358 B9 00 00		LDA abs,Y	get segmentcode	
035B E8		INX	segmentpointer +1	
035C 95 00		STA z-p,X	store segmentcode	
035E E0 15		CPX imm	done?	
0360 D0 F5		BNE FILL		
0362 60		RTS		
0363 A9 30	SHOW	LDA imm	initialize loopcounter	
0365 85 04		STA LOOPCO	sets <u>speed</u>	
0367 A5 06		LDA ONOFST	get on/off	
0369 D0 02		BNE DIGSTA		
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TARGET (6-column)

Nummer:

Blad: 7 van 8

036B 46 04		LSR LOOPCO	make offperiod half onperiod
036D A9 07	DIGSTA	LDA imm	initialize digitpointer
036F 85 00		STA DIGIPT	
0371 E6 00	DIGCON	INC DIGIPT	digitpointer +2
0373 E6 00		INC DIGIPT	
0375 A5 00		LDA DIGIPT	get digitpointer
0377 C9 15		CMP imm	digit "7"?
0379 F0 1D		BEQ LOOPCN	
037B A9 7F	LITEUP	LDA imm	
037D 8D 41 17		STA abs	padd =1
0380 A5 00		LDA DIGIPT	get digitpointer
0382 8D 42 17		STA abs	digit on
0385 E8		INX	segmentpointer +1
0386 B5 00		LDA z-p,X	get segmentcode
0388 8D 40 17		STA abs	segments on
038B A0 30		LDY imm	and wait
038D 88	WAIT	DEY	
038E D0 FD		BNE WAIT	
0390 A9 00		LDA imm	segments off
0392 8D 40 17		STA abs	
0395 4C 71 03		JMP DIGCON	
0398 A9 00	LOOPCN	LDA imm	digits off
039A 8D 42 17		STA abs	
039D C6 04		DEC LOOPCO	loopcounter -1
039F 60		RTS	
03A0 A9 01	MESSHO	LDA imm	initialize on
03A2 85 06		STA ONOFST	to on/off store
03A4 A4 02	MESHOC	LDY STATPT	get statepointer
03A6 A6 01		LDX SEGMPT	get segmentpointer
03A8 C8	MESFIL	INY	statepointer +1
03A9 B9 00 03		LDA abs,Y	get segmentcode
03AC E8		INX	segmentpointer +1
03AD 95 00		STA z-p,X	store segmentcode
03AF E0 15		CPX imm	done?
03B1 D0 F5		BNE MESFIL	
03B3 20 77 00		JSR SEGSTA	
03B6 60		RTS	
03B7 A6 03	STATCH	LDX STATST	get state
03B9 E8 E8		INX INX	statepointer +4
03BB E8 E8		INX INX	
03BD EA		NOP	
03BE 94 00		STY z-p,X	load xsegs in state
03C0 E0 1E		CPX imm	
03C2 F0 15		BEQ TODEC	
03C4 E0 1D		CPX imm	
03C6 F0 11		BEQ TODEC	
03C8 E0 1C		CPX imm	
03CA F0 0D		BEQ TODEC	

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TARGET (6-column)		Nummer:
		Blad: 8 van 8
<pre> 03CC E0 1B          CPX imm 03CE F0 11          BEQ RETURN 03D0 E8 E8          INX INX      statepointer +6 03D2 E8 E8          INX INX 03D4 E8 E8          INX INX 03D6 94 00          STY z-p,X    load xsegs in state 03D8 60             RETURN RTS 03D9 CA CA          TODEC DEX DEX statepointer -6 03DB CA CA          DEX DEX 03DD CA CA          DEX DEX 03DF 94 00          STY z-p,X    load xsegs in state 03E1 60             RTS  messages in Dutch: 03E2 F7 80 BF F1 80 FC      message 1 03E8 F1 BF F9 86 80 80      message 2 03EE 80 F6 BF F9 D0 F7      message 3 03F4 ED BE F1 F1 86 F9      message 4 03FA 00 00 00 00 00 00      off  alternative messages in English: 03E2 F7 80 BF D0 80 FC      message 1 03E8 F1 BF BE B8 80 80      message 2 03EE F6 BE D0 D0 F7 EE      message 3 03F4 FC BE ED F8 F9 DE      message 4 03FA 00 00 00 00 00 00      off </pre>		
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		Ref.: Fer Weber

## AANVULLINGEN OP MICROCHESS 1.0

Nummer:

Blad:

1 van 6

Fer Weber, Gebr. Wienerstr. 139, 5913 XS Venlo, Holland.

Uitgekeken op de vijf gegeven openingen bij Microchess 1.0 voor de KIM-1? Ik heb er eens een aantal bijeengesprokkeld en gecoördereerd. Val niet direct over me heen als het bij tijd en wijle niet de meest ultramoderne versie is... ik ken ook alleen maar de spelregels. In ieder geval goed voor variaties.

Caro-Kann doorschuif		Frans doorschuif		Nimzo-Indisch	
CC	44	CC	44	CC	43
13-33	64-44	13-33	64-44	(00DB)	06
65-55	12-22	63-53	14-24	1 14-34	06
				71-52	25
14-34	63-43	14-34	63-43	2 15-35	42
64-44	13-33	64-44	13-33	63-53	0F
					24
33-43	44-34	33-43	44-34	3 06-25	52
75-42	02-35	65-45	12-32	72-36	04
					41
15-35	62-42	15-25	62-52	4 13-23	54
44-35	33-42	76-55	01-22	65-45	0D
					32
02-35	75-42	01-22	76-55	5 02-24	53
63-53	14-24	74-56	03-21	76-55	07
					22
06-25	71-52	17-27	60-50	6 01-22	55
76-64	01-13	45-35	32-42	64-44	0E
					33
01-13	76-64	02-13	75-64	7 03-01r	75
71-63	06-14	55-47	22-30	73-71r	00
					06
03-01r	74-76r	06-14	71-63	8 17-27	50
64-56	13-21	71-63	06-14	36-25	04
					52
35-26	42-51	03-01r	74-76r	9 16-25	52
74-64	03-13	63-51	14-26	44-35	01
				(00C0)	42
					99

r = rokade, dus na gegeven zet nog een extra zet intoetsen (+ F!)  
Eerste kolom speelt KIM met wit, tweede kolom speelt KIM met zwart.

Repertoire witspeler.

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AANVULLINGEN OP MICROCHESS 1.0

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Blad:

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Gesloten Siciliaan		Aljechinverdediging		Pirc-verdediging	
(00DB)	CC	CC	CC	CC	CC
1 13-33	0F	13-33	0F	13-33	0F
65-45	33	71-52	33	64-54	33
2 06-25	45	06-25	52	14-34	54
76-55	07	64-44	07	71-52	0E
3 11-21	25	06-44	25	71-52	34
61-51	55	33-44	44	06-25	52
4 02-11	0A	52-44	0F	61-51	07
72-61	21	44-44	44	02-13	25
5 14-24	0E	02-35	44	72-61	51
64-54	24	44-56	04	10-30	08
6 12-32	0C	35-26	04	76-55	30
63-53	32	65-45	26	05-23	55
7 01-22	06	04-40	01	63-43	23
71-63	22	63-53	40	34-44	43
8 03-01r	00	14-24	0E	55-34	0E
73-71r	01	76-55	24	23-34	44
9 05-14	05	01-13	06	43-34	34
77-76	14	72-63	13	04-34	01
(00C0)	99	03-01r	00	73-71r	34
		73-71r	01		99
			99		

Repertoire witspeler.

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Frans doorschuif

13-33	CC	44
63-53	0F	0F
	33	24
	53	43
14-34	0E	0E
64-44	34	33
	44	34
33-43	0F	0D
65-45	43	32
	45	52
15-25	0D	07
76-55	25	22
	55	55
01-22	06	01
74-56	22	21
	56	53
02-24	04	0D
45-34	24	43
	34	43
25-34	0D	05
75-64	34	13
	64	75
03-01r	00	07
55-34	01	43
	34	43
22-34	06	01
56-34	34	43
	99	99

Repertoire zwartspeler.

Weens

13-33	CC	44
63-43	0F	0F
	33	34
	43	52
06-25	07	07
76-55	25	22
	55	42
02-35	04	04
72-45	35	32
	45	46
04-31	01	0A
61-51	31	26
	51	55
31-22	01	06
71-52	22	25
	52	64
01-13	06	0E
64-54	13	23
	54	53
14-24	0E	05
75-31	24	46
	31	56
22-21	01	08
60-50	21	27
	50	45
12-32	0C	01
74-63	32	14
	99	99

Repertoire witspeler.

Scandinavisch

1 13-33	CC	44
64-44	0F	0E
	33	33
	44	33
2 33-44	0F	01
74-44	44	33
	44	52
3 06-25	07	01
44-47	25	30
	47	41
4 16-36	0B	01
47-36	36	41
	36	71
5 07-06	03	01
36-54	06	23
	54	43
6 14-34	0E	06
71-52	34	25
	52	55
7 01-22	06	0D
65-55	22	22
	55	53
8 02-24	04	0B
66-56	24	21
	56	64
9 25-13	07	05
75-31	13	46
(00C0)	99	99

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Hollands	Siciliaan	Najdorf	Siciliaan-Indisch
1	(00DB) 1 14-34 62-42	CC 0E 34 42	CC 0E 34 52
2	11-21 71-52	0A 21 52	14-34 71-52 15-35 63-53
3	02-11 61-51	04 11 51	64-44 12-32 76-55 13-23
4	01-22 72-61	06 22 61	63-43 32-43 55-43 06-25
5	03-01r 73-71r	00 01 72	63-43 32-43 55-43 06-25
6	15-35 64-54	0D 35 54	64-44 12-32 71-52 10-20
7	06-25 76-55	07 25 55	72-36 14-24 65-45 01-22
8	34-44 55-47	0E 44 47	64-44 12-32 71-52 10-20
9	22-14 65-45	06 14 99	64-44 12-32 71-52 10-20

Repertoire zwartspeler

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AANVULLINGEN OP MICROCHESS 1.0

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Speans Tsjigorin		Speans Engelse aanval		Neo-Cunningham	
(00DB)	CC	CC	CC	CC	CC
1 13-33	0F	13-33	0F	13-33	0F
63-43	33	63-43	33	63-43	33
2 01-22	43	01-22	43	12-32	43
76-55	06	76-55	06	43-32	0C
3 02-46	22	02-46	22	01-22	32
67-57	55	67-57	55	72-63	32
4 46-37	04	46-37	04	02-35	06
71-52	04	71-52	04	71-52	06
5 03-01r	00	04-13	01	06-25	07
72-63	01	66-46	13	52-33	25
6 02-03	02	37-26	04	25-33	07
66-46	03	72-63	26	64-44	33
7 37-26	46	03-01r	63	35-24	44
64-54	04	73-71r	00	44-33	04
8 15-25	0D	15-25	0D	24-33	04
73-71r	25	64-44	25	73-71r	33
9 14-34	0E	33-44	44	14-34	72
55-47	34	75-31	0F	63-54	0E
(00C0)	99		99		99

Repertoire zwartspeler

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AANVULLINGEN OP MICROCHESS 1.0

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Blad:

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Orang Oetan (Englisch)

(00DB)	CC	41
1 16-36	0A	61-41 0F
63-43	36	14-34 34
	43	61 0C
2 05-16	05	72-61 25
62-52	16	15-25 44
	52	44 04
3 13-33	0F	64-44 41
72-36	33	05-41 42
	36	42 06
4 02-35	04	75-42 14
71-63	35	06-14 45
	63	45 0E
5 12-32	0C	65-45 33
64-44	32	13-33 33
	44	33 04
6 33-44	0F	44-33 23
36-54	44	41-23 34
	54	34 0C
7 32-43	0C	45-34 34
52-43	43	25-34 37
	43	37 06
8 04-40	01	73-37 26
63-51	40	14-26 55
	51	55 07
9 01-22	06	76-55 13
76-64	22	01-13 99
(00C0)	99	

IS ER IEMAND DIE AAN KIM MICROCHESS 1.0 HEEFT ZITTEN  
KNUTSELEN (LIEFST MET SUCCES NATUURLIJK) ???????????  
SCHRIJF HET MIJ DAN EENS... FER WEBER  
GEBR.WIENERSTR. 139  
5913 XS VENLO

Datum ingang:

18 juni 1979

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Fer Weber

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0010:      ;      ***** FILE 01 *****
0020:      ;
0030:      ;   PATCHES MICRO-ADE DEEL 6.
0040:      ;   -----
0050:      ;
0060:      ;   AUTHOR   S T WOLDRINGH
0070:      ;             KLIEVERINK 619
0080:      ;             AMSTERDAM.
0090:      ;
0100:      ;
0110:      ;   IN DE 30 FILES WORDEN DE VOLGENDE PATCHES
0120:      ;   OP MICRO-ADE BESCHREVEN.
0130:      ;
0140:      ;   1.   BY DE CASSETTE-LOAD ROUTINES WERD 1 CHARACTER
0150:      ;         VAN DE BUFFER VERLOREN , ZOWEL BY HET
0160:      ;         H-COMMANDO ALS OOK BY DE G NN,MM.
0170:      ;
0180:      ;   2.   IN DE EDITOR IS HET ADRES VAN DE ROUTINE
0190:      ;         BUFIN VERKEERD GEWEEST.
0200:      ;
0210:      ;   3.   BY HET T3 COMMANDO WORDT NU ZOWEL DE
0220:      ;         NIEUWE ALS OOK DE OUDE GRENZEN
0230:      ;         UITGEPRINT.
0240:      ;
0250:      ;   4.   NA EEN CARRIAGE RETURN WORDEN 3 'NULL'
0260:      ;         CHARACTERS GEPRINT , OM DE TTY DE
0270:      ;         TYD TE GEVEN NAAR HET BEGIN VAN DE
0280:      ;         REGEL TERUG TE KEREN.
0290:      ;
0300:      ;   5.   BY HET STARTEN VAN MICRO-ADE WORDT OM DE
0310:      ;         DATUM GEVRAAGD ; DEZE WORDT BY DE PASS-2
0320:      ;         EN DE SYMBOL-TABLE PRINTS IN
0330:      ;         DE KOP GEPLAATST.
0340:      ;
0350:      ;   6.   BY T EN T1 WORDEN PAGINA'S GEPRINT, MET
0360:      ;         PAGINA-NUMMERS ED.
0370:      ;
0380:      ;   7.   AAN HET EINDE VAN PASS-2 EN NA HET
0390:      ;         PRINTEN VAN DE SYMBOL-TABLES WORDT DE
0400:      ;         PAGINA AFGEMAAKT MET BLANCO REGELS
0410:      ;         (KOST SOMS WEL WAT PAPIER).
0420:      ;
0430:      ;   8.   INDIEN BY PASS-2 PRINT? N GEGEVEN
0440:      ;         WORDT, WORDT BY BEEINDIGING VAN PASS-2
0450:      ;         EEN '.' GEPRINT OM AAN TE DUIDEN , DAT ER
0460:      ;         WEER ID'S INGETIKT KUNNEN WORDEN.
0470:      ;
0480:      ;   9.   DE 24K RAM WERKGEBIED HEEFT EEN NIEUWE
0490:      ;         VERDELING GEKREGEN TUSSEN SOURCE, TABLES
0500:      ;         EN OBJECT RUIMTE.
0510:      ;
0520:      ;   10.  DE PAGINAGROOTTE VAN DE PASS-2 LISTING EN
0530:      ;         INDELING ERVAN ZYN GEWYZIGD (OA 2 CRLF'S
0540:      ;         NA DE KOP ; 60 REGELS/BLAD EN 4 CRLF'S VOOR
0550:      ;         DE VOLGENDE KOP).
0560:      ;
0570:      ;   11.  TOEVOEGEN VAN HET T4 EN T5 COMMANDO,
0580:      ;         ZOWEL MET HET T4 (GESORTEERD OP DE
0590:      ;         NAAM VAN DE SYMBOLS) ALS OOK MET HET T5
0600:      ;         (GESORTEERD OP DE ADRESSEN VAN DE SYMBOLS)

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0610:      ;   WORDT NAAST HET SYMBOL EN ZYN ADRES OOK
0620:      ;   DE FILENR + REGELNR GEPRINT , WAAR HET
0630:      ;   SYMBOL GEDEFINIEERD IS EN DAARNA ALLE
0640:      ;   FILENR'S + REGELNR'S , WAAR HET SYMBOL
0650:      ;   GEBRUIKT WORDT.
0660:      ;
0670:      ; 12. BY PASS-2 WORDT DE VRAAG 'XREF?'
0680:      ;   GESTELD ; INDIEN Y GEANTWOORD WORDT,
0690:      ;   WORDEN DE XREF-ENTRIES AAN DE XRE-TABLE
0700:      ;   TOEGEVOEGD, ANDERS NIET. OM DUS ALLEN DE
0710:      ;   ID'S-REGELNR'S TE VERKRYGEN , WAAR EEN
0720:      ;   EEN SYMBOL GEDEFINIEERD IS , MOET N GEGEVEN
0730:      ;   WORDEN. WORDT EEN PASS-2 HERHAALD ZONDER
0740:      ;   PASS-1 , DAN MOET OOK N GEANTWOORD
0750:      ;   WORDEN , OMDAT ANDERS ALLE XREF'S VAN
0760:      ;   PASS-2 DUBBEL IN TABEL Zouden KOMEN.
0770:      ;
0780:      ; OPMERKINGEN.
0790:      ; - DE SYMBOLTABLE ENTRIES ZYN 8 BYTES
0800:      ;   LANG GEWORDEN TEGEN VROEGER 6 BYTES.
0810:      ; - PER XREF-ENTRY WORDEN 5 BYTES GEBRUIKT
0820:      ; - BY DE NU GEBRUIKTE VERDELING VAN HET RAM
0830:      ;   (5K SYMBOL EN 14K XREF) KUNNEN 640 SYMBOLS
0840:      ;   EN 2867 XREF-ENTRIES OPGENOMEN WORDEN.
0850:      ; - HOCHT DE XREF-TABLE OVERLOPEN DAN WORDT DIT
0860:      ;   NIET GEMELD , DOCH WEL VOORKOMEN.
0870:      ;
0880:      ; - BY ALLE PATCHES IS ER VAN UIT GEGAAN, DAT
0890:      ;   DE PATCHES OP MICRO-ADE DEEL 1 TM DEEL 5
0900:      ;   AANGEBRACHT ZYN (ZIE VORIGE KIMKENNERS)
0910:      ;   IS DIT NIET GEBEURD , DAN ZAL GEANALISEERD
0920:      ;   MOETEN WORDEN WAAR DEZE PATCHES
0930:      ;   PRECIES AANGEBRACHT DIENEN TE WORDEN.
0940:      ;
0010:      ;   ***** FILE 02 *****
0020:      ;
0030:      ;   IN PATCHES USED FIELDS AND
0040:      ;   SUBROUTINES.
0050:      ;
0060:      15 00 NLO      *      $0015
0070:      16 00 NHI      *      NLO      +01
0080:      1A 00 LOPAR    *      $001A
0090:      1D 00 HIPAR    *      $001D
0100:      31 00 YCOM     *      $0031
0110:      3F 00 SLO      *      $003F
0120:      40 00 SHI      *      SLO      +01
0130:      41 00 ELO      *      SHI      +01
0140:      42 00 EHI      *      ELO      +01
0150:      4C 00 PASS     *      $004C
0160:      4D 00 PRFLAG   *      PASS     +01
0170:      54 00 CNT      *      $0054
0180:      55 00 XLO      *      CNT      +01
0190:      55 00 PAGE     *      XLO
0200:      56 00 XHI      *      PAGE     +01
0210:      56 00 PGN      *      XHI
0220:      62 00 ID       *      $0062
0230:      63 00 PMODE    *      ID      +01
0240:      6D 00 SYMID    *      $006D
0250:      6F 00 SSLO     *      SYMID    +02
0260:      70 00 SSHI     *      SSLO     +01

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0270:      71 00 SXLO  *      SSHI  +01
0280:      72 00 SXHI  *      SXLO  +01
0290:      73 00 EXLO  *      SXHI  +01
0300:      74 00 EXHI  *      EXLO  +01
0310:      75 00 DATE  *      EXHI  +01
0320:      7B 00 PAGE2 *      DATE  +06
0330:      7C 00 PGN2  *      PAGE2  +01
0340:      7D 00 XRFIND *      PGN2  +01
0350:      7E 00 SAVE  *      XRFIND +01
0360:      00 01 BUFFER *      $0100
0370:      31 20 RESTRT *      $2031
0380:      A4 25 PRSYM  *      $25A4
0390:      E6 25 SETSY  *      $25E6
0400:      97 27 YSN02 *      $2797
0410:      A0 27 MESSY  *      $27A0
0420:      C1 27 DADS  *      $27C1
0430:      37 28 FNDSYM *      $2837
0440:      8B 29 GETARG *      $298B
0450:      0A 2C MESSG  *      $2C0A
0460:      C9 2D HEXAX  *      $2DC9
0470:      CD 2D HEXOUT *      $2DCD
0480:      E7 2D CRLF  *      $2DE7
0490:      EB 2D HEXSP  *      $2DEB
0500:      EE 2D OUTSP  *      $2DEE
0510:      F0 2D OUTCH  *      $2DF0
0520:      41 2E BUFIN  *      $2E41
0530:      A0 2E OUTPUT *      $2EA0
0540:      ;
0010:      ; ***** FILE 03 *****
0020:      ;
0030: 2000      ORG      $2000
0040:      ;
0050: 2000 20 47 25      JSR      GETDAY TYPE IN THE DATE
0060: 2003 EA      NOP
0070: 2004 20 3E 25      COLD      JSR      CLDCRL CLD AND CRLF (C)
0080: 2007 EA      NOP
0090:      ;
0010:      ; ***** FILE 04 *****
0020:      ;
0030: 2050      ORG      $2050
0040:      ;
0050: 2050 20 41 2E      JSR      BUFIN  CORRECT WRONG JSR
0060:      ;
0010:      ; ***** FILE 05 *****
0020:      ;
0030: 217B      ORG      $217B
0040:      ;
0050: 217B 4C 04 20      JMP      COLD      GOTO NEW CLEAR-POINT
0060:      ;
0010:      ; ***** FILE 06 *****
0020:      ;
0030: 232F      ORG      $232F
0040:      ;
0050: 232F 4C 3C 35      JMP      TABLE GOTO NEW TABLE-ROUTINES
0060:      ;
0010:      ; ***** FILE 07 *****
0020:      ;
0030: 2514      ORG      $2514
0040:      ;
0050:      ; USE THE OLD SPACE OF TABLE FOR

```

```

0060:      ; NEW SUBROUTINES.
0070:      ;
0080:      ;
0090:      ; ROUTINES TO RESET THE XREF-POINTERS
0100:      ;
0110: 2514 A9 00 SETSY2 LDAIM $00
0120: 2516 85 6F      STAZ  SSLO
0130: 2518 85 54      STAZ  CNT
0140: 251A A9 05      LDAIM $05
0150: 251C 85 71      STAZ  SXLO
0160: 251E AD A9 2E    LDA   SYMXRF
0170: 2521 85 70      STAZ  SSHI
0180: 2523 85 72      STAZ  SXHI
0190: 2525 60          RTS
0200:      ;
0210:      ;
0220:      ; ROUTINES TO ADD A TO XREF-POINTERS.
0230:      ;
0240: 2526 A2 00 DADS2 LDXIM $00
0250: 2528 A9 05 DADX2 LDAIM $05      ADD LENGTH OF ENTRY
0260: 252A 18 DADA2 CLC
0270: 252B 75 6F      ADCZX SSLO
0280: 252D 95 6F      STAZX SSLO
0290: 252F B5 70      LDAZX SSHI
0300: 2531 69 00      ADCIM $00
0310: 2533 95 70      STAZX SSHI
0320: 2535 B5 6F      LDAZX SSLO
0330: 2537 C5 73      CMPZ  EXLO
0340: 2539 B5 70      LDAZX SSHI
0350: 253B E5 74      SBCZ  EXHI
0360: 253D 60          RTS
0370:      ;
0380:      ;
0390:      ; ROUTINE TO CLEAR DEC-MODE
0400:      ; AND TO DO A CRLF
0410:      ;
0420: 253E D8 CLDCRL CLD
0430: 253F 20 E7 2D JSR   CRLF
0440: 2542 A9 FF LDAIM $FF      RESET PAGE-MODE
0450: 2544 85 63 STAZ  PMODE
0460: 2546 60          RTS
0470:      ;
0480:      ;
0490:      ; ROUTINE TO ACCEPT THE DATE
0500:      ; AND TO STORE IT IN ZERO-PAGE.
0510:      ;
0520: 2547 20 3E 25 GETDAY JSR   CLDCRL MAKE SURE OF CLD
0530: 254A A0 00      LDYIM $00      TYPE 'ENTER DATE'
0540: 254C B9 67 25 GETDY1 LDAAY TEKST GET A CHAR
0550: 254F 20 F0 2D JSR   OUTCH PRINT IT
0560: 2552 C8      INY
0570: 2553 C0 14      CPYIM $14      ALL DONE ?
0580: 2555 D0 F5      BNE   GETDY1 IF NOT NEXT
0590: 2557 20 41 2E JSR   BUFIN ACCEPT DATE VIA BUFIN
0600: 255A A2 00      LDXIM $00
0610: 255C BD 00 01 GETDY2 LDAAX BUFFER TRANSFER DATE
0620: 255F 95 75      STAZX DATE TO ZERO-PAGE
0630: 2561 E8      INX
0640: 2562 E0 06      CPXIM $06      ALL DONE
0650: 2564 D0 F6      BNE   GETDY2 IF NOT , NEXT

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0660: 2566 60          RTS          FINISHED.
0670:
0680:
0690:
0700:
0710: 2567 45          TEKST = 'E
0720: 2568 4E          = 'N
0730: 2569 54          = 'T
0740: 256A 45          = 'E
0750: 256B 52          = 'R
0760: 256C 20          = '
0770: 256D 44          = 'D
0780: 256E 41          = 'A
0790: 256F 54          = 'T
0800: 2570 45          = 'E
0810: 2571 20          = '
0820: 2572 28          = '('
0830: 2573 44          = 'D
0840: 2574 44          = 'D
0850: 2575 4D          = 'M
0860: 2576 4D          = 'M
0870: 2577 59          = 'Y
0880: 2578 59          = 'Y
0890: 2579 29          = ')'
0900: 257A 20          = '
0910:
0920:
0930:
0940:
0950:
0960:
0970: 257B A5 4D          ENDPAG LDAAZ PRFLAG WAS THERE A PRT
0980: 257D D0 0D          BNE ENDPG3
0990: 257F E6 56          ENDPG1 INCZ PGN
1000: 2581 10 06          BPL ENDPG2
1010: 2583 20 E7 2D          JSR CRLF PRINT A DUMMY LINE
1020: 2586 4C 7F 25          JMP ENDPG1
1030: 2589 20 8F 25          ENDPG2 JSR 4CRLF JUST 4 MORE LINES
1040: 258C 4C 31 20          ENDPG3 JMP RESTRT AND FINISHED
1050:
1060:
1070:
1080:
1090: 258F A0 03          4CRLF LDYIH $03 SET Y TO 4 TIMES
1100: 2591 20 E7 2D          4CRLF1 JSR CRLF
1110: 2594 88          DEY
1120: 2595 D0 FA          BNE 4CRLF1 ALL DONE ?
1130: 2597 60          RTS YES.
1140:
1150:
1160:
1170:
1180:
1190: 2598 20 CD 2D          PRTID JSR HEXOUT PRINT IT
1200: 259B 20 EE 2D          JSR OUTSP AND A SPACE
1210: 259E 60          RTS
1220:
1230:
1240:
1250:

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1260: 259F 58      TEXT      =      'X
1270: 25A0 52      =      'R
1280: 25A1 45      =      'E
1290: 25A2 46      =      'F
1300: 25A3 3F      =      '?'
1310:              ;
0010:              ;      ***** FILE 08 *****
0020:              ;
0030: 25EC          ORG      $25EC
0040:              ;
0050: 25EC A9 08    LDAIM   $08      XLO = SLO + 08
0060:              ;
0010:              ;      ***** FILE 09 *****
0020:              ;
0030: 25F8          ORG      $25F8
0040:              ;
0050: 25F8 4C 90 33 MAIN    JMP      RESSYM RESET SYMBOL-ADR
0060: 25FB EA        MAINR   NOP
0070:              ;
0010:              ;      ***** FILE 0A *****
0020:              ;
0030: 2622          ORG      $2622
0040:              ;
0050: 2622 20 A4 33 JSR      SPECIN GOTO SPECIAL BUFIN
0060:              ;
0010:              ;      ***** FILE 0B *****
0020:              ;
0030: 26FB          ORG      $26FB
0040:              ;
0050: 26FB 20 45 37 JSR      QUEST  ASK XREF AND SAVE-ID
0060:              ;
0010:              ;      ***** FILE 0C *****
0020:              ;
0030: 271D          ORG      $271D
0040:              ;
0050: 271D 4C 7B 25 JMP      ENDPAG GOTO MAKE THE PAGE FULL
0060:              ;
0010:              ;      ***** FILE 0D *****
0020:              ;
0030: 272F          ORG      $272F
0040:              ;
0050: 272F 20 B5 33 JSR      GTARG  GOTO SPECIAL GETARG
0060:              ;
0010:              ;      ***** FILE 0E *****
0020:              ;
0030: 27C3          ORG      $27C3
0040:              ;
0050: 27C3 A9 08    DADX    LDAIM   $08      ADD 8
0060:              ;
0010:              ;      ***** FILE 0F *****
0020:              ;
0030: 2837          ORG      $2837
0040:              ;
0050: 2837 A9 F8    FNDSEB  LDAIM   $F8      LENTGH IS 8
0060:              ;
0010:              ;      ***** FILE 10 *****
0020:              ;
0030: 287F          ORG      $287F
0040:              ;
0050: 287F 20 B5 33 JSR      GTARG  GET ARG WITHOUT

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0060:      ; STORING A XREF
0070:      ;
0010:      ; ***** FILE 11 *****
0020:      ;
0030: 2894      ORG      $2894
0040:      ;
0050: 2894 4C FD 33  ADTABL JMP      INSID  ALSO INSERT THE
0060: 2897 EA      ADTBRLR NOP      SYMID IN SYMBOL-ENTRY
0070:      ;
0010:      ; ***** FILE 12 *****
0020:      ;
0030: 29B0      ORG      $29B0
0040:      ;
0050: 29B0 4C 5C 34      JMP      STRXRF STORE XREF-ENTRY
0060: 29B3 EA      OKS1     NOP
0070: 29B4 EA      NOP
0080:      ;
0010:      ; ***** FILE 13 *****
0020:      ;
0030: 29FD      ORG      $29FD
0040:      ;
0050: 29FD 20 E4 33      JSR      M4CRLF AT THE END OF A PAGE
0060: 2A00 EA      NOP      4 SPACE LINES FOR CUTTING
0070: 2A01 EA      NOP      (IF PRFLAG IS ON)
0080: 2A02 EA      NOP
0090: 2A03 EA      NOP
0100: 2A04 EA      NOP
0110:      ;
0010:      ; ***** FILE 14 *****
0020:      ;
0030: 2A12      ORG      $2A12
0040:      ;
0050: 2A12 20 00 35      JSR      TOPPRT PRINT NEW SORT OF
0060: 2A15 EA      NOP      HEADER OF THE PAGE
0070: 2A16 EA      NOP
0080: 2A17 EA      NOP
0090: 2A18 EA      NOP
0100:      ;
0010:      ; ***** FILE 15 *****
0020:      ;
0030: 2A2D      ORG      $2A2D
0040:      ;
0050: 2A2D A0 02      LDYIM $02      THREE CRLF AFTER HEADER
0060:      ;
0010:      ; ***** FILE 16 *****
0020:      ;
0030: 2A35      ORG      $2A35
0040:      ;
0050: 2A35 A9 C4      LDAIM $C4      CORRECT NUMBERS OF LINES
0060:      ; DUE TO THE 4 CRLF'S
0070:      ;
0010:      ; ***** FILE 17 *****
0020:      ;
0030: 2C4E      ORG      $2C4E
0040:      ;
0050: 2C4E 40      =      $40      NO 'PAGE' YET
0060:      ;
0010:      ; ***** FILE 18 *****
0020:      ;
0030: 2E11      ORG      $2E11

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0040: ;
0050: 2E11 20 EC 33      JSR    OUT-0D OUTPUT 0D + 3 * 00
0060: ;
0010: ;      ***** FILE 19 *****
0020: ;
0030: 2EA3                ORG     $2EA3
0040: ;
0050: ; NEW RAM-DIVISIONS
0060: ;
0070: 2EA3 53      SOURCM =      $53      SOURCE-TABLE - 1
0080: 2EA4 54      SOURCE =      $54      START OF SOURCE-TABLE
0090: 2EA5 64      SOURCF =      $64      END OF SOURCE-TABLE
0100: 2EA6 40      SYMBOL =      $40      START OF SYMBOL-TABLE
0110: 2EA7 54      SYMF  =      $54      END OF SYMBOL-TABLE
0120: 2EA8 9C      OBJECT =      $9C      START OF OBJECT-BUFFER
0130: 2EA9 64      SYMXRF =      $64      START OF XREF-TABLE
0140: 2EAA 9C      SYMMAX =      $9C      END OF XREF-TAB
0150: 2EAB EA      NOP
0160: 2EAC 20 98 25  ERID  JSR    PRTID  REPLACE INSTRUCTIONS
0170: ;
0010: ;      ***** FILE 1A *****
0020: ;
0030: 2EE9                ORG     $2EE9
0040: ;
0050: 2EE9 D0 C1      BNE     ERID    JUMP TO NEW ERID
0060: ;
0010: ;      ***** FILE 1B *****
0020: ;
0030: 30D9                ORG     $30D9
0040: ;
0050: 30D9 E9 06      SBCIM $06      CORRECT SMALL ERROR
0060: ;
0010: ;      ***** FILE 1C *****
0020: ;
0030: 3390                ORG     $3390
0040: ;
0050: ;
0060: ; ROUTINE TO RESET THE ADDRESS-
0070: ; POINTERS OF THE XREF-TABLE AND
0080: ; TO RESET THE SYMID
0090: ;
0100: 3390 A0 00      RESSYM LDYIM $00
0110: 3392 84 7D      STYZ   XRFIND CLEAR XRF-FLAG
0120: 3394 84 41      STYZ   ELO    ALSO RESET ELO
0130: 3396 84 6D      STYZ   SYMID
0140: 3398 84 6E      STYZ   SYMID +01
0150: 339A 84 71      STYZ   SXLO
0160: 339C AD A9 2E      LDA   SYMXRF
0170: 339F 85 72      STAZ   SXHI
0180: 33A1 4C FB 25      JMP   MAINR  AND RETURN
0190: ;
0200: ;
0210: ; ROUTINE TO PRINT A POINT DURING PASS-2
0220: ; IF THE PRINT IS OFF , TO RECOGNISE THE
0230: ; END OF THE PASS-2.
0240: ;
0250: 33A4 A5 4C      SPECIN LDAZ   PASS    CHECK IF PASS-2
0260: 33A6 D0 09      BNE     NOPUNT IF NOT, NO POINT
0270: 33A8 A5 4D      LDAZ   PRFLAG CHECK IF PRT IS OFF
0280: 33AA F0 05      BEQ     NOPUNT IF NOT , NO POINT

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0290: 33AC A9 2E          LDAIM '
0300: 33AE 20 F0 2D        JSR  OUTCH
0310: 33B1 20 41 2E        NOPUNT JSR  BUFIN  GET ID'S
0320: 33B4 60              RTS
0330:                      ;
0340:                      ;
0350:                      ; ROUTINE TO GET A ARGUMENT
0360:                      ; WITHOUT STORING A XREF
0370:                      ;
0380: 33B5 20 BE 33          GTARG  JSR  PSSXLO SAVE SXLO ETC
0390: 33B8 20 8B 29          JSR  GETARG FIND SYMBOL
0400: 33BB 20 D1 33          JSR  PLSXLO RESTORE SXLO ETC
0410:                      ;
0420:                      ;
0430:                      ; ROUTINE TO SAVE SXLO , SXHI,
0440:                      ; EXLO AND EXHI
0450:                      ;
0460: 33BE 48              PSSXLO PHA          SAVE ACCUM
0470: 33BF A5 71              LDAZ  SXLO
0480: 33C1 85 7E              STAZ  SAVE
0490: 33C3 A5 72              LDAZ  SXHI
0500: 33C5 85 7F              STAZ  SAVE      +01
0510: 33C7 A5 73              LDAZ  EXLO
0520: 33C9 85 80              STAZ  SAVE      +02
0530: 33CB A5 74              LDAZ  EXHI
0540: 33CD 85 81              STAZ  SAVE      +03
0550: 33CF 68              PLA          RESTORE ACCUM
0560: 33D0 60              RTS
0570:                      ;
0580:                      ;
0590:                      ; ROUTINE TO RESTORE SXLO,
0600:                      ; SXHI, EXLO, EXHI.
0610:                      ;
0620: 33D1 48              PLSXLO PHA          SAVE ACCUM
0630: 33D2 A5 81              LDAZ  SAVE      +03
0640: 33D4 85 74              STAZ  EXHI
0650: 33D6 A5 80              LDAZ  SAVE      +02
0660: 33D8 85 73              STAZ  EXLO
0670: 33DA A5 7F              LDAZ  SAVE      +01
0680: 33DC 85 72              STAZ  SXHI
0690: 33DE A5 7E              LDAZ  SAVE
0700: 33E0 85 71              STAZ  SXLO
0710: 33E2 68              PLA          RESTORE ACCUM, ...
0720: 33E3 60              RTS
0730:                      ;
0740:                      ;
0750:                      ; ROUTINE TO CHECK IF PRFLAG IS OFF
0760:                      ; IF NOT , TO PRINT 4 CRLF'S
0770:                      ;
0780: 33E4 A5 4D          M4CRLF LDAZ  PRFLAG CHECK FLAG
0790: 33E6 D0 03          BNE  M4CRL1
0800: 33E8 20 8F 25          JSR  4CRLF  PRINT THEM
0810: 33EB 60          M4CRL1 RTS          NO PRINT
0820:                      ;
0830:                      ;
0840:                      ; ROUTINE TO PRINT A CARRIAGE RETURN
0850:                      ; AND 3 TIMES A NULL TO GIVE THE TTY
0860:                      ; TIME TO RETURN TO THE BEGINNING OF
0870:                      ; THE LINE.
0880:                      ;

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0890: 33EC 20 A0 2E OUT-OD JSR OUTPUT A CR
0900: 33EF A9 03 LDAIM $03 SET COUNT TO 3
0910: 33F1 85 7E STAZ SAVE USE SAVE-FIELD
0920: 33F3 A9 00 OUTOD1 LDAIM $00
0930: 33F5 20 A0 2E JSR OUTPUT
0940: 33F8 C6 7E DECZ SAVE COUNT - 1
0950: 33FA D0 F7 BNE OUTOD1 NOT FINISHED YET
0960: 33FC 60 RTS READY.
0970: ;
0980: ;
0990: ; ROUTINE TO INSERT THE SYMID
1000: ; IN THE SYMBOL-TABLE AND TO
1010: ; PLACE TO FIRST XREF OF THIS
1020: ; SYMBOL IN THE XREF-TABLE
1030: ;
1040: 33FD A2 00 INSID LDXIM $00 FOR THE IX-INSTR
1050: 33FF 91 41 STAIY ELO STORE PC
1060: 3401 C8 INY Y ON SYMID-PLACE
1070: 3402 A5 6D LDAZ SYMID GET SYMID
1080: 3404 91 41 STAIY ELO AND STORE IT
1090: 3406 09 80 ORAIM $80 MAKE BIT ' = 1
1100: 3408 81 71 STAIX SXLO
1110: 340A 20 4A 34 JSR INSXLO ADD 1 TO SXLO
1120: 340D C8 INY
1130: 340E A5 6E LDAZ SYMID +01
1140: 3410 91 41 STAIY ELO THE SECOND PART OF IT
1150: 3412 81 71 STAIX SXLO
1160: 3414 20 29 34 JSR STRRST AND STORE THE REST
1170: 3417 18 CLC ADD 1 TO SYMID
1180: 3418 A5 6E LDAZ SYMID +01
1190: 341A 69 01 ADCIM $01
1200: 341C 85 6E STAZ SYMID +01
1210: 341E A5 6D LDAZ SYMID
1220: 3420 69 00 ADCIM $00
1230: 3422 85 6D STAZ SYMID
1240: 3424 A2 02 LDXIM $02 RESTORE INSTRUCTIONS
1250: 3426 4C 97 28 JMP ADTBLR AND GO BACK
1260: ;
1270: ;
1280: ; ROUTINE TO STORE THE ID AND
1290: ; THE LINE-NUMBERS IN THE XREF-TABLE
1300: ;
1310: 3429 20 4A 34 STRRST JSR INSXLO ADD 1 TO SXLO
1320: 342C A5 62 LDAZ ID GET ID
1330: 342E 81 71 STAIX SXLO AND STORE IT
1340: 3430 20 4A 34 JSR INSXLO
1350: 3433 A5 16 LDAZ NHI HIGH-ORDER NUMBER
1360: 3435 81 71 STAIX SXLO AND STORE IT
1370: 3437 20 4A 34 JSR INSXLO
1380: 343A A5 15 LDAZ NLO GET LOW-ORDER NUMBER
1390: 343C 81 71 STAIX SXLO AND STORE IT
1400: 343E 20 4A 34 JSR INSXLO
1410: 3441 A5 71 LDAZ SXLO AJUST MAX-POINTERS
1420: 3443 85 73 STAZ EXLO
1430: 3445 A5 72 LDAZ SXHI
1440: 3447 85 74 STAZ EXHI
1450: 3449 60 RTS
1460: ;
1470: ;
1480: ; ROUTINE TO ADD 1 TO SXLO

```

1490:  
1500: 344A E6 71  
1510: 344C D0 0D  
1520: 344E E6 72  
1530: 3450 A5 72  
1540: 3452 CD AA 2E  
1550: 3455 D0 04  
1560: 3457 C6 71  
1570: 3459 C6 72  
1580: 345B 60

```

INSXLO INCZ SXLO
      BNE INSXLR
      INCZ SXHI ALSO 1 BY HIGH-ORDER
      LDAZ SXHI CHECK IF NOT TOO FAR
      CMP SYMMAX
      BNE INSXLR NOT TOO FAR
      DECZ SXLO FORCE SXLO AND SXHI
      DECZ SXHI TO MAX - 1

```

INSXLR RTS

```

;
; ROUTINE TO STORE A XREF
; ENTRY IN THE TABLE WITH
; SYMID FROM FOUND SYMBOL
;

```

```

STRXRF LDAZ XRFIND CHECK IF BLOCKED
      BNE STRXF1
      LDXIM $00
      INY
      LDAIY SLO GET SYMID
      STAIY SXLO AND STORE IT
      JSR INSXLO
      INY
      LDAIY SLO GET LAST PART
      STAIY SXLO AND STORE IT
      JSR STRRST
STRXF1 LDYZ YCOM RESTORE INSTR.
      LDAAY BUFFER
      JMP OKS1 AND RETURN

```

\*\*\*\*\* FILE 1D \*\*\*\*\*

```

;
; THE AREA OF 3480-3500 MUST BE KEPT FREE
; BECAUSE IT IS USED BY THE V-COMMAND
; TO MAKE SHURE OF THAT THIS FILE WILL BE
; GIVEN A ORG OF 3500.
;

```

ORG \$3500

```

;
; ROUTINE TO PRINT THE TOP OF
; A PASS-2 ASSEMBLYLIST.
;

```

```

TOPPRT LDAZ PRFLAG CHECK IF NO PRINT
      BNE TOPPT5
      LDYIM $23 PRINT FIRST PART
TOPPT1 LDAAY MESSG GET A CHAR
      CMPIM $40 END-CHAR ?
      BEQ TOPPT2 IF SO, STOP
      JSR OUTCH IF NOT PRINT IT
      INY NEXT ONE
      BNE TOPPT1
TOPPT2 JSR OUTSP TWO SPACE
      JSR OUTSP
      LDXIM $00 PRINT THE DATE
TOPPT3 LDAZX DATE GET A DATE-NUMB
      JSR OUTCH PRINT IT
      INX NEXT ONE
      CPXIM $06 DONE ?
      BNE TOPPT3 IF NOT, GO ON

```

0120:  
0130: 3500 A5 4D  
0140: 3502 D0 35  
0150: 3504 A0 23  
0160: 3506 B9 0A 2C  
0170: 3509 C9 40  
0180: 350B F0 06  
0190: 350D 20 F0 2D  
0200: 3510 C8  
0210: 3511 D0 F3  
0220: 3513 20 EE 2D  
0230: 3516 20 EE 2D  
0240: 3519 A2 00  
0250: 351B B5 75  
0260: 351D 20 F0 2D  
0270: 3520 E8  
0280: 3521 E0 06  
0290: 3523 D0 F6



```

0300: 3525 20 EE 2D      JSR   OUTSP
0310: 3528 20 EE 2D      JSR   OUTSP
0320: 352B C8            TOPPT4 INY          GET NEXT CHAR
0330: 352C B9 0A 2C      LDAAY MESSG   OF HEADER
0340: 352F C9 40          CMPIM $40
0350: 3531 F0 06          BEQ   TOPPT5
0360: 3533 20 F0 2D      JSR   OUTCH
0370: 3536 4C 2B 35      JMP   TOPPT4 GOTO NEXT ONE
0380: 3539 A9 00      TOPPT5 LDAIM $00   FORCE BEQ ON RETURN
0390: 353B 60          RTS
0400:
0410:
0420:      ; ROUTINE TO DETERMEN WHAT KIND OF
0430:      ; TABLE PROCESSING IS WANTED AND
0440:      ; TO EXECUTE THE DESIRED COMMAND
0450:      ;
0460: 353C A6 1A      TABLE LDXZ  LOPAR
0470: 353E E0 02      CPXIM $02   ONLY ADRESSES ?
0480: 3540 F0 04      BEQ   TABLE1
0490: 3542 E0 03      CPXIM $03   A COMPLETE TABLEPRINT ????
0500: 3544 D0 1D      BNE   TABLE3 IF SO , ANALYSE IT
0510: 3546 20 F9 36      TABLE1 JSR   PRS1   PRINT ADRESSES
0520: 3549 A6 1A      LDXZ  LOPAR   ONLY A PRINT ?
0530: 354B E0 02      CPXIM $02
0540: 354D F0 11      BEQ   TABLE2 YES, THEN FINITO
0550: 354F A5 1B      LDAZ  LOPAR  +01 NO, ALSO A CHANGE
0560: 3551 85 41      STAZ  ELO
0570: 3553 A5 1E      LDAZ  HIPAR  +01
0580: 3555 85 42      STAZ  EHI
0590: 3557 20 E7 2D      JSR   CRLF
0600: 355A A2 02      LDXIM $02   FORCE A NEW PRINT
0610: 355C 86 1A      STXZ  LOPAR   OF THE ADDRESSES
0620: 355E D0 E6      BNE   TABLE1
0630: 3560 4C 31 20      TABLE2 JMP   RESTRT AND RETURN TO EDITOR
0640: 3563 A9 00      TABLE3 LDAIM $00   SET COUNTER
0650: 3565 85 7B      STAZ  PAGE2   TO INITIAL VALUES
0660: 3567 85 7C      STAZ  PGN2
0670: 3569 20 85 35      JSR   SORT1   SORT SYMBOLTABLE
0680: 356C A6 1A      LDXZ  LOPAR
0690: 356E E0 03      CPXIM $03
0700: 3570 30 09      BMI   TABLE4 ONLY SYMBOLPRT
0710: 3572 20 CD 35      JSR   SORT2   SORT XREFTABLE
0720: 3575 20 03 36      JSR   PRTXRF PRINT XREF
0730: 3578 4C 7E 35      JMP   TABLE5 AND RETURN
0740: 357B 20 B7 36      TABLE4 JSR   PRNT   PRINT SYMBOLS
0750: 357E A5 7C      TABLE5 LDAZ  PGN2   FORCE ENDPG1 TO
0760: 3580 85 56      STAZ  PGN   FILL UP THE PAGE
0770: 3582 4C 7F 25      JMP   ENDPG1
0780:
0790:
0800:      ; ROUTINE TO SORT THE SYMBOL-TABLE
0810:      ; ON ADDRESSES IF LOPAR IS ODD
0820:      ; OR ON SYMBOLS IF LOPAR IS EVEN
0830:      ;
0840: 3585 20 E6 25      SORT1 JSR   SETSY  RSET SYMBOLPOINTERS
0850: 3588 A5 1A      LOOPT LDAZ  LOPAR  ADDRESSES OR SYMB
0860: 358A 4A          LSRA
0870: 358B E0 11      BCS   LOOPB
0880: 358D A0 00      LDYIM $00
0890: 358F B1 55      NEXTY LDAIY XLO   COMPARE

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0900: 3591 D1 3F      CMPIY SLO      FOR
0910: 3593 90 16      BCC  MOVEX  ALFA
0920: 3595 D0 27      BNE  LESS   SORT
0930: 3597 C8          INY
0940: 3598 C0 04      CPYIM $04    ALL CHAR COMPARED
0950: 359A D0 F3      BNE  NEXTY  IF NOT, NEXT
0960: 359C F0 20      BEQ  LESS   IF SO , NO MOVE
0970: 359E A0 04      LOOPB  LDYIM $04
0980: 35A0 B1 55      LDAIY XLO    COMPARE
0990: 35A2 D1 3F      CMPIY SLO
1000: 35A4 C8          INY      FOR ADDRESS
1010: 35A5 B1 55      LDAIY XLO    SORT
1020: 35A7 F1 3F      SBCIY SLO
1030: 35A9 B0 13      BCS  LESS
1040: 35AB A0 07      MOVEX  LDYIM $07    EXCHANGE ENTRIES
1050: 35AD B1 3F      MOVET  LDAIY SLO    GET ONE OF SLO
1060: 35AF 48          PHA      SAVE IT
1070: 35B0 B1 55      LDAIY XLO    AND ONE OF XLO
1080: 35B2 91 3F      STAIY SLO    STORE IT IN SLO
1090: 35B4 68          PLA      GET SAVED SLO
1100: 35B5 91 55      STAIY XLO    AND STORE IT IN XLO
1110: 35B7 88          DEY      NEXT ONE
1120: 35B8 10 F3      BPL  MOVET  IF STILL ANY
1130: 35BA A9 01      LDAIM $01    INDICATE A MOVE
1140: 35BC 85 54      STAZ  CNT
1150: 35BE 20 C1 27  LESS JSR  DADS     SLO = SLO + 8
1160: 35C1 A2 16      LDXIM $16
1170: 35C3 20 C3 27  JSR  DADX     XLO = XLO + 8
1180: 35C6 90 C0      BCC  LOOPT  IF STILL ENTRIES, GO ON
1190: 35C8 A6 54      LDXZ  CNT    ANY CHANGES ?
1200: 35CA D0 B9      BNE  SORT1  IF SO, FROM THE START
1210: 35CC 60          RTS      IF NOT READY
1220:
0010:
0020:
0030:
0040:
0050:
0060: 35CD 20 14 25  SORT2 JSR  SETSY2 RESET XREFPOINTERS
0070: 35D0 A0 00      LOOPT2 LDYIM $00
0080: 35D2 B1 71      NEXTY2 LDAIY SXLO
0090: 35D4 D1 6F      CMPIY SSLO
0100: 35D6 90 09      BCC  MOVX2  IF SSLO < SXLO
0110: 35D8 D0 1A      BNE  LESS2  IF SSLO > SXLO
0120: 35DA C8          INY      COMPARE NEXT ENTRY
0130: 35DB C0 05      CPYIM $05    ALL CHAR HAD ?
0140: 35DD D0 F3      BNE  NEXTY2 IF NOT NEXT ONE
0150: 35DF F0 13      BEQ  LESS2  IF YES , A EQUAL ONE
0160: 35E1 A0 04      MOVX2 LDYIM $04    EXCHANGE SSLO
0170: 35E3 B1 6F      MOVET2 LDAIY SSLO  AND SXLO
0180: 35E5 48          PHA
0190: 35E6 B1 71      LDAIY SXLO
0200: 35E8 91 6F      STAIY SSLO
0210: 35EA 68          PLA
0220: 35EB 91 71      STAIY SXLO
0230: 35ED 88          DEY
0240: 35EE 10 F3      BPL  MOVET2
0250: 35F0 A9 01      LDAIM $01    INDICATE A MOVE
0260: 35F2 85 54      STAZ  CNT
0270: 35F4 20 26 25  LESS2 JSR  DADS2  SSLO = SSLO + 5

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0280: 35F7 A2 02          LDXIM $02      SXLO = SXLO + 5
0290: 35F9 20 28 25      JSR      DADX2
0300: 35FC 90 D2          BCC      LOOPT2  STILL ENTRIES
0310: 35FE A6 54          LDXZ    CNT      NO CHANGES ?
0320: 3600 D0 CB          BNE      SORT2  YES
0330: 3602 60            RTS          NO
0340:
0350:
0360:      ; ROUTINE TO PRINT OUT A
0370:      ; LIST OF ALL THE SYMBOLS, THEIR
0380:      ; ADDRESSES, THEIR LINE-NUMBERS AND
0390:      ; THE LINE-NUMBERS WHERE THE SYMBOL
0400:      ; IS USED.
0410:
0420: 3603 20 E6 25      PRTXRF JSR      SETSY  RESET SYMBOLPOINTERS
0430: 3606 20 EB 36      JSR      PRISO  PRINT FIRST HEADER
0440: 3609 20 A4 25      PRTXF1 JSR      PRSYM  PRINT THE SYMBOL
0450: 360C A0 04          LDYIM $04
0460: 360E B1 3F          LDAIY SLO
0470: 3610 AA            TAX
0480: 3611 C8            INY
0490: 3612 B1 3F          LDAIY SLO
0500: 3614 20 C9 2D      JSR      HEXAX  AND ITS ADDRESS
0510: 3617 20 14 25      JSR      SETSY2 SET XREFPOINTERS
0520: 361A C8            INY
0530: 361B B1 3F          LDAIY SLO      GET SYMID
0540: 361D 09 80          ORAIM $80      MAKE BIT7 = 1
0550: 361F 85 6D          STAZ  SYMID  SAVE IT
0560: 3621 C8            INY
0570: 3622 B1 3F          LDAIY SLO
0580: 3624 85 6E          STAZ  SYMID  +01
0590: 3626 20 6F 36      JSR      FNDXRF  SEARCH FOR IT
0600: 3629 20 98 36      JSR      PRSYM  PRINT IT
0610: 362C 20 14 25      JSR      SETSY2 RESET XREFPOINTERS
0620: 362F A5 6D          LDZ    SYMID
0630: 3631 29 7F          ANDIM $7F  MAKE BIT7 = 0
0640: 3633 85 6D          STAZ  SYMID
0650: 3635 20 6F 36      JSR      FNDXRF  FIND IT
0660: 3638 F0 0A          BEQ      PRTXF2  ONE IS FOUND
0670: 363A 20 DF 36      JSR      PRTLIN  PRINT THE LINE
0680: 363D 20 C1 27      JSR      DADS   GOTO NEXT SYMBOL
0690: 3640 90 C7          BCC      PRTXF1  STILL ONE IN THE TABLE
0700: 3642 B0 2A          BCS      PRTXF7  ALL DONE
0710: 3644 A9 FB          PRTXF2 LDAIM $FB  FOUR XREF ON A LINE
0720: 3646 85 54          STAZ  CNT
0730: 3648 E6 54          PRTXF3 INCZ  CNT  SPACE LEFT ?
0740: 364A 30 0D          BMI      PRTXF5  YES
0750: 364C 20 DF 36      JSR      PRTLIN  NO, PRINT LINE
0760: 364F A0 18          LDYIM $18  PRINT 24 SPACES
0770: 3651 20 EE 2D      PRTXF4 JSR      OUTSP
0780: 3654 88            DEY
0790: 3655 D0 FA          BNE      PRTXF4
0800: 3657 F0 EB          BEQ      PRTXF2
0810: 3659 20 98 36      PRTXF5 JSR      PRSYM  PRINT XREF-ENTRY
0820: 365C 20 26 25      JSR      DADS2  GOTO NEXT ONE
0830: 365F B0 05          BCS      PRTXF6  NO MORE LEFT
0840: 3661 20 6F 36      JSR      FNDXRF  SEARCH FOR NEXT
0850: 3664 F0 E2          BEQ      PRTXF3  IF ONE PRT IT
0860: 3666 20 DF 36      PRTXF6 JSR      PRTLIN  FINISH LAST LINE
0870: 3669 20 C1 27      JSR      DADS   GOTO NEXT SYMBOL

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0880: 366C 90 9B          BCC   PRTXF1 IF STILL LEFT
0890: 366E 60          PRTXF7 RTS      ALL DONE
0900:                      ;
0910:                      ;
0920:                      ; ROUTINE TO FIND A XREF WITH
0930:                      ; THE SAME ID AS SYMID
0940:                      ;
0950: 366F A0 01      FNDXRF LDYIM $01
0960: 3671 B1 6F          LDAIY SSLO
0970: 3673 C5 6E          CMPZ  SYMID  +01
0980: 3675 88          DEY
0990: 3676 B1 6F          LDAIY SSLO
1000: 3678 E5 6D          SBCZ  SYMID
1010: 367A B0 07          BCS   MAYBE  EITHER > OR =
1020: 367C 20 26 25      FNDXF1 JSR   DADS2  GOTO NEXT ONE
1030: 367F 90 EE          BCC   FNDXRF
1040: 3681 B0 12          BCS   NOGO    NONE FOUND
1050: 3683 A0 00      MAYBE LDYIM $00
1060: 3685 A5 6D          LDAZ  SYMID
1070: 3687 D1 6F          CMPIY SSLO
1080: 3689 D0 0A          BNE   NOGO
1090: 368B A5 6E          LDAZ  SYMID  +01
1100: 368D C8          INY
1110: 368E D1 6F          CMPIY SSLO
1120: 3690 D0 03          BNE   NOGO
1130: 3692 A9 00      GOGO  LDAIM $00
1140: 3694 60          RTS
1150: 3695 A9 FF      NOGO  LDAIM $FF
1160: 3697 60          RTS
1170:                      ;
0010:                      ; ***** FILE 1F *****
0020:                      ;
0030:                      ; ROUTINE TO PRINT THE XREF-ENTRY.
0040:                      ;
0050: 3698 20 EE 2D      PRTSYM JSR   OUTSP  FIRST TWO SPACES
0060: 369B 20 EE 2D          JSR   OUTSP
0070: 369E A0 02          LDYIM $02
0080: 36A0 B1 6F          LDAIY SSLO  GET TAPE-ID
0090: 36A2 20 CD 2D      JSR   HEXOUT PRINT IT
0100: 36A5 A9 2D          LDAIM '-'
0110: 36A7 20 F0 2D      JSR   OUTCH
0120: 36AA C8          INY
0130: 36AB B1 6F          LDAIY SSLO  GET LINENUMB
0140: 36AD 48          PHA
0150: 36AE C8          INY
0160: 36AF B1 6F          LDAIY SSLO
0170: 36B1 AA          TAX
0180: 36B2 68          PLA
0190: 36B3 20 C9 2D      JSR   HEXAX
0200: 36B6 60          RTS
0210:                      ;
0220:                      ;
0230:                      ; ROUTINE TO PRINT THE
0240:                      ; SYMBOL-TABLE.
0250:                      ;
0260: 36B7 20 E6 25      PRNT  JSR   SETSY  RESET POINTERS
0270: 36BA 20 EB 36          JSR   PRISO  PRINT HEADER
0280: 36BD A9 FB      PRNT1 LDAIM $FB  FOUR ENTRIES / LINE
0290: 36BF 85 54          STAZ  CNT
0300: 36C1 E6 54      PRNT2 INCZ  CNT

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0310: 36C3 30 06          BMI    PRNT3  SPACE LEFT
0320: 36C5 20 DF 36      JSR    PRTLIN NO PRINT LINE
0330: 36C8 4C BD 36      JMP    PRNT1
0340: 36CB 20 A4 25      PRNT3 JSR    PRSYM
0350: 36CE A0 04          LDYIM $04   PRINT ADDRESS
0360: 36D0 B1 3F          LDAIY SLO
0370: 36D2 AA            TAX
0380: 36D3 C8            INY
0390: 36D4 B1 3F          LDAIY SLO
0400: 36D6 20 C9 2D      JSR    HEXAX
0410: 36D9 20 C1 27      JSR    DADS   TO NEXT ONE
0420: 36DC 90 E3          BCC    PRNT2  STILL ANY LEFT
0430: 36DE 60            RTS      NO
0440:
0450:
0460:      ; ROUTINE TO PRINT A LINE AND
0470:      ; TO KEEP TRACK OF PAGE-SIZE
0480:
0490: 36DF E6 7C          PRTLIN INCZ  PGN2
0500: 36E1 30 04          BMI    OKLIN
0510: 36E3 20 EB 36      JSR    PRTS0  PRINT HEADER
0520: 36E6 60            RTS
0530: 36E7 20 E7 2D      OKLIN JSR    CRLF   FINISH LINE
0540: 36EA 60            RTS
0550:
0560:
0570:      ; ROUTINE TO PRINT HEADER
0580:
0590: 36EB 20 8F 25      PRTS0 JSR    4CRLF
0600: 36EE 20 F9 36      JSR    PRTS1
0610: 36F1 20 0E 37      JSR    PRTS2
0620: 36F4 A9 C4          LDAIM $C4
0630: 36F6 85 7C          STAZ  PGN2   RESET LINE COUNT
0640: 36F8 60            RTS
0650:
0660:
0670:      ; ROUTINE TO PRINT FIRST PART OF
0680:      ; THE HEADER LINE
0690:
0700: 36F9 A0 4B          PRTS1 LDYIM $4B
0710: 36FB 20 A0 27      JSR    MESSY
0720: 36FE AD A6 2E      LDA    SYMBOL PRINT ADDRESSES
0730: 3701 A2 00          LDXIM $00
0740: 3703 20 EB 2D      JSR    HEXSP
0750: 3706 A5 42          LDZ    EHI
0760: 3708 A6 41          LDXZ  ELO
0770: 370A 20 C9 2D      JSR    HEXAX
0780: 370D 60            RTS
0790:
0800:
0810:      ; ROUTINE TO PRINT SECOND PART
0820:      ; OF THE HEADER
0830:
0840: 370E 20 EE 2D      PRTS2 JSR    OUTSP
0850: 3711 20 EE 2D      JSR    OUTSP
0860: 3714 A2 00          LDXIM $00   PRINT DATE
0870: 3716 B5 75          PRTS2A LDZAX DATE
0880: 3718 20 F0 2D      JSR    OUTCH
0890: 371B E8            INX
0900: 371C E0 06          CPXIM $06   ALL DONE ?

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0910: 371E D0 F6          BNE   PRTS2A NO
0920: 3720 20 EE 2D       JSR   OUTSP
0930: 3723 A0 45          LDYIM $45   PRINT 'PAGE'
0940: 3725 B9 0A 2C   PRTS2B LDAAY MESSG
0950: 3728 C9 40          CMPIM $40   END ?
0960: 372A F0 06          BEQ   PRTS2C YES
0970: 372C 20 F0 2D       JSR   OUTCH  NO
0980: 372F C8             INY           NEXT ONE
0990: 3730 D0 F3          BNE   PRTS2B
1000: 3732 20 EE 2D   PRTS2C JSR   OUTSP
1010: 3735 A5 7B          LDAZ  PAGE2  PRINT PAGE-NUMB
1020: 3737 F8             SED
1030: 3738 18             CLC
1040: 3739 69 01          ADCIM $01   ADD 1 TO PAGE2
1050: 373B D8             CLD
1060: 373C 85 7B          STAZ  PAGE2
1070: 373E 20 CD 2D       JSR   HEXOUT
1080: 3741 20 8F 25       JSR   4CRLF
1090: 3744 60             RTS
1100: ;
1110: 3745 20 EE 2D   QUEST JSR   OUTSP  PRT ' XREF?'
1120: 3748 A0 00          LDYIM $00
1130: 374A B9 9F 25   QUEST1 LDAAY TEXT  GET A CHAR
1140: 374D 20 F0 2D       JSR   OUTCH  PRINT IT
1150: 3750 C8             INY
1160: 3751 C0 05          CPYIM $05   ALL DONE
1170: 3753 D0 F5          BNE   QUEST1 NO
1180: 3755 20 EE 2D       JSR   OUTSP
1190: 3758 20 97 27       JSR   YSN02  GET ANSWER
1200: 375B D0 02          BNE   QUEST2 NO XREF
1210: 375D A9 00          LDAIM $00
1220: 375F 85 7D   QUEST2 STAZ  XRFIND
1230: 3761 A0 18          LDYIM $18   PRINT 'SAVE-ID?'
1240: 3763 20 A0 27       JSR   MESSY
1250: 3766 60             RTS           AND RETURN
1260: ;

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ADTABL	2894	11-0050				
ADTBLR	2897	11-0060	1C-1250			
BUFFER	0100	02-0360	07-0610	1C-1770		
BUFIN	2E41	02-0520	04-0050	07-0590	1C-0310	
CLDCRL	253E	07-0420	03-0070	07-0520		
CNT	0054	02-0170	02-0180	07-0130	1D-1140	1D-1190
			1E-0260	1E-0310	1E-0720	1E-0730
			1F-0290	1F-0300		
COLD	2004	03-0070	05-0050			
CRLF	2DE7	02-0480	07-0430	07-1010	07-1100	1D-0590
			1F-0530			
DADAR	252A	07-0260				
DADS	27C1	02-0420	1D-1150	1E-0680	1E-0870	1F-0410
DADSR	2526	07-0240	1E-0270	1E-0820	1E-1020	
DADX	27C3	0E-0050	1D-1170			
DADXR	2528	07-0250	1E-0290			
DATE	0075	02-0310	02-0320	07-0620	1D-0250	1F-0870
EH1	0042	02-0140	1D-0580	1F-0750		
ELD	0041	02-0130	02-0140	1C-0120	1C-1050	1C-1080
			1C-1140	1D-0560	1F-0760	
ENDPAG	257B	07-0970	0C-0050			
ENDPGQ	257F	07-0990	07-1020	1D-0770		
ENDPGR	2589	07-1030	07-1000			
ENDPGS	258C	07-1040	07-0980			
ERID	2EAC	19-0160	1A-0050			
EXHI	0074	02-0300	02-0310	07-0350	1C-0530	1C-0640
			1C-1440			
EXLO	0073	02-0290	02-0300	07-0330	1C-0510	1C-0660
			1C-1420			
FNDSDL	2837	0F-0050				
FNDSYM	2837	02-0430				
FNDXFR	367C	1E-1020				
FNDXRF	366F	1E-0950	1E-0590	1E-0650	1E-0840	1E-1030
GETARG	298B	02-0440	1C-0390			
GETDAY	2547	07-0520	03-0050			
GETDYQ	254C	07-0540	07-0580			
GETDYR	255C	07-0610	07-0650			
GOGO	3692	1E-1130				
GTARG	33B5	1C-0380	0D-0050	10-0050		
HEXAX	2DC9	02-0460	1E-0500	1F-0190	1F-0400	1F-0770
HEXOUT	2DCD	02-0470	07-1190	1F-0090	1F-1070	
HEXSP	2DEB	02-0490	1F-0740			
HIPAR	001D	02-0090	1D-0570			
ID	0062	02-0220	02-0230	1C-1320		
INSID	33FD	1C-1040	11-0050			
INSXLO	344A	1C-1500	1C-1110	1C-1310	1C-1340	1C-1370
			1C-1400	1C-1710		
INSXLR	345B	1C-1580	1C-1510	1C-1550		
LESS	35BE	1D-1150	1D-0920	1D-0960	1D-1030	
LESSR	35F4	1E-0270	1E-0110	1E-0150		
LOOPB	359E	1D-0970	1D-0870			
LOOPTR	3588	1D-0850	1D-1180			
LOOPTR	35D0	1E-0070	1E-0300			
LOPAR	001A	02-0080	1D-0460	1D-0520	1D-0550	1D-0610
			1D-0680	1D-0850		
MAIN	25F8	09-0050				
MAINR	25FB	09-0060	1C-0180			
MAYBE	3683	1E-1050	1E-1010			
MESSG	2C0A	02-0450	1D-0160	1D-0330	1F-0940	
MESSY	27A0	02-0410	1F-0710	1F-1240		

MOVET	35AD	1D-1050	1D-1120			
MOVETR	35E3	1E-0170	1E-0240			
MOVEX	35AB	1D-1040	1D-0910			
MOVXR	35E1	1E-0160	1E-0100			
MTCRLF	33E4	1C-0780	13-0050			
MTCRLQ	33EB	1C-0810	1C-0790			
NEXTY	358F	1D-0890	1D-0950			
NEXTYR	35D2	1E-0080	1E-0140			
NHI	0016	02-0070	1C-1350			
NLO	0015	02-0060	02-0070	1C-1380		
NOGO	3695	1E-1150	1E-1040	1E-1080	1E-1120	
NOFUNT	33B1	1C-0310	1C-0260	1C-0280		
OBJECT	2EA8	19-0120				
OKLIN	36E7	1F-0530	1F-0500			
OKSQ	29B3	12-0060	1C-1780			
OUTCH	2DF0	02-0510	07-0550	1C-0300	1D-0190	1D-0260
			1D-0360	1F-0110	1F-0880	1F-0970
			1F-1140			
OUTPUT	2EA0	02-0530	1C-0890	1C-0930		
OUTSP	2DEE	02-0500	07-1200	1D-0220	1D-0230	1D-0300
			1D-0310	1E-0770	1F-0050	1F-0060
			1F-0840	1F-0850	1F-0920	1F-1000
			1F-1110	1F-1180		
OUTMPD	33EC	1C-0890	18-0050			
OUTPDQ	33F3	1C-0920	1C-0950			
PAGE	0055	02-0190	02-0200			
PAGER	007B	02-0320	02-0330	1D-0650	1F-1010	1F-1060
PASS	004C	02-0150	02-0160	1C-0250		
PGN	0056	02-0210	07-0990	1D-0760		
PGNR	007C	02-0330	02-0340	1D-0660	1D-0750	1F-0490
			1F-0630			
PLSXLO	33D1	1C-0620	1C-0400			
PMODE	0063	02-0230	07-0450			
PRFLAG	004D	02-0160	07-0970	1C-0270	1C-0780	1D-0130
PRNT	36B7	1F-0260	1D-0740			
PRNTQ	36BD	1F-0280	1F-0330			
PRNTR	36C1	1F-0300	1F-0420			
PRNTS	36CB	1F-0340	1F-0310			
PRSYM	25A4	02-0380	1E-0440	1F-0340		
PRTID	2598	07-1190	19-0160			
PRTLIN	36DF	1F-0490	1E-0670	1E-0750	1E-0860	1F-0320
PRTSP	36EB	1F-0590	1E-0430	1F-0270	1F-0510	
PRTSQ	36F9	1F-0700	1D-0510	1F-0600		
PRTSR	370E	1F-0840	1F-0610			
PRTSRA	3716	1F-0870	1F-0910			
PRTSRB	3725	1F-0940	1F-0990			
PRTSRC	3732	1F-1000	1F-0960			
PRTSYM	3698	1F-0050	1E-0600	1E-0810		
PRTXFQ	3609	1E-0440	1E-0690	1E-0880		
PRTXFR	3644	1E-0710	1E-0660	1E-0800		
PRTXFS	3648	1E-0730	1E-0850			
PRTXFT	3651	1E-0770	1E-0790			
PRTXFU	3659	1E-0810	1E-0740			
PRTXFV	3666	1E-0860	1E-0830			
PRTXFW	366E	1E-0890	1E-0700			
PRTXRF	3603	1E-0420	1D-0720			
PSSXLO	33BE	1C-0460	1C-0380			
QUEST	3745	1F-1110	0B-0050			
QUESTQ	374A	1F-1130	1F-1170			
QUESTR	375F	1F-1220	1F-1200			

REGSYM	3390	1C-0100	09-0050			
RESTRY	2031	02-0370	07-1040	1D-0630		
SAVE	007E	02-0350	1C-0480	1C-0500	1C-0520	1C-0540
			1C-0630	1C-0650	1C-0670	1C-0690
			1C-0910	1C-0940		
SETSY	25E6	02-0390	1D-0840	1E-0420	1F-0260	
SETSYR	2514	07-0110	1E-0060	1E-0510	1E-0610	
SHI	0040	02-0120	02-0130			
SLO	003F	02-0110	02-0120	1C-1690	1C-1730	1D-0900
			1D-0990	1D-1020	1D-1050	1D-1080
			1E-0460	1E-0490	1E-0530	1E-0570
			1F-0360	1F-0390		
SORTQ	3585	1D-0840	1D-0670	1D-1200		
SORTR	35CD	1E-0060	1D-0710	1E-0320		
SOURCE	2EA4	19-0080				
SOURCEF	2EA5	19-0090				
SOURCEM	2EA3	19-0070				
SPECIN	33A4	1C-0250	0A-0050			
SSHI	0070	02-0260	02-0270	07-0170	07-0290	07-0310
			07-0340			
SSLO	006F	02-0250	02-0260	07-0120	07-0270	07-0280
			07-0320	1E-0090	1E-0170	1E-0200
			1E-0960	1E-0990	1E-1070	1E-1110
			1F-0080	1F-0130	1F-0160	
STRRST	3429	1C-1310	1C-1160	1C-1750		
STRXFR	3472	1C-1760	1C-1660			
STRXRF	345C	1C-1650	12-0050			
SXHI	0072	02-0280	02-0290	07-0180	1C-0170	1C-0490
			1C-0680	1C-1430	1C-1520	1C-1530
			1C-1570			
SXLO	0071	02-0270	02-0280	07-0150	1C-0150	1C-0470
			1C-0700	1C-1100	1C-1150	1C-1330
			1C-1360	1C-1390	1C-1410	1C-1500
			1C-1560	1C-1700	1C-1740	1E-0080
			1E-0190	1F-0220		
SYMBOL	2EA6	19-0100	1F-0720			
SYMF	2EA7	19-0110				
SYMID	006D	02-0240	02-0250	1C-0130	1C-0140	1C-1070
			1C-1130	1C-1180	1C-1200	1C-1210
			1C-1230	1E-0550	1E-0580	1E-0620
			1E-0640	1E-0970	1E-1000	1E-1060
			1E-1090			
SYMMAX	2EAA	19-0140	1C-1540			
SYMXRF	2EA9	19-0130	07-0160	1C-0160		
TABLE	353C	1D-0460	06-0050			
TABLEQ	3546	1D-0510	1D-0480	1D-0620		
TABLER	3560	1D-0630	1D-0540			
TABLES	3563	1D-0640	1D-0500			
TABLET	357B	1D-0740	1D-0700			
TABLEU	357E	1D-0750	1D-0730			
TEKST	2567	07-0710	07-0540			
TEXT	259F	07-1260	1F-1130			
TOPFRT	3500	1D-0130	14-0050			
TOPFTQ	3506	1D-0160	1D-0210			
TOPPTR	3513	1D-0220	1D-0180			
TOPPTS	351B	1D-0250	1D-0290			
TOPPTT	352B	1D-0320	1D-0370			
TOPPTU	3539	1D-0380	1D-0140	1D-0350		
XHI	0056	02-0200	02-0210			
XLO	0055	02-0180	02-0190	1D-0890	1D-0980	1D-1010

			1D-1070	1D-1100		
XRFIND	007D	02-0340	02-0350	1C-0110	1C-1650	1F-1220
YCOM	0031	02-0100	1C-1760			
YSNOR	2797	02-0400	1F-1190			
TCRLF	258F	07-1090	07-1030	1C-0800	1F-0590	1F-1080
TCRLFQ	2591	07-1100	07-1120			

NLO	0015	02-0060	02-0070	1C-1380		
NHI	0016	02-0070	1C-1350			
LOPAR	001A	02-0080	1D-0460	1D-0520	1D-0550	1D-0610
		1D-0680	1D-0850			
HIPAR	001D	02-0090	1D-0570			
YCOM	0031	02-0100	1C-1760			
SLO	003F	02-0110	02-0120	1C-1690	1C-1730	1D-0900
			1D-0990	1D-1020	1D-1050	1D-1080
			1E-0460	1E-0490	1E-0530	1E-0570
			1F-0360	1F-0390		
SHI	0040	02-0120	02-0130			
ELO	0041	02-0130	02-0140	1C-0120	1C-1050	1C-1080
			1C-1140	1D-0560	1F-0760	
EHI	0042	02-0140	1D-0580	1F-0750		
PASS	004C	02-0150	02-0160	1C-0250		
PRFLAG	004D	02-0160	07-0970	1C-0270	1C-0780	1D-0130
CNT	0054	02-0170	02-0180	07-0130	1D-1140	1D-1190
			1E-0260	1E-0310	1E-0720	1E-0730
			1F-0290	1F-0300		
PAGE	0055	02-0190	02-0200			
XLO	0055	02-0180	02-0190	1D-0890	1D-0980	1D-1010
			1D-1070	1D-1100		
PGN	0056	02-0210	07-0990	1D-0760		
XHI	0056	02-0200	02-0210			
ID	0062	02-0220	02-0230	1C-1320		
Pmode	0063	02-0230	07-0450			
SYMID	006D	02-0240	02-0250	1C-0130	1C-0140	1C-1070
			1C-1130	1C-1180	1C-1200	1C-1210
			1C-1230	1E-0550	1E-0580	1E-0620
			1E-0640	1E-0970	1E-1000	1E-1060
			1E-1090			
SSLO	006F	02-0250	02-0260	07-0120	07-0270	07-0280
			07-0320	1E-0090	1E-0170	1E-0200
			1E-0960	1E-0990	1E-1070	1E-1110
			1F-0080	1F-0130	1F-0160	
SSHI	0070	02-0260	02-0270	07-0170	07-0290	07-0310
			07-0340			
SXLO	0071	02-0270	02-0280	07-0150	1C-0150	1C-0470
			1C-0700	1C-1100	1C-1150	1C-1330
			1C-1360	1C-1390	1C-1410	1C-1500
			1C-1560	1C-1700	1C-1740	1E-0080
			1E-0190	1E-0220		
SXHI	0072	02-0280	02-0290	07-0180	1C-0170	1C-0490
			1C-0680	1C-1430	1C-1520	1C-1530
			1C-1570			
EXLO	0073	02-0290	02-0300	07-0330	1C-0510	1C-0660
			1C-1420			
EXHI	0074	02-0300	02-0310	07-0350	1C-0530	1C-0640
			1C-1440			
DATE	0075	02-0310	02-0320	07-0620	1D-0250	1F-0870
PAGER	007B	02-0320	02-0330	1D-0650	1F-1010	1F-1060
PGNR	007C	02-0330	02-0340	1D-0660	1D-0750	1F-0490
			1F-0630			
XRFIND	007D	02-0340	02-0350	1C-0110	1C-1650	1F-1220
SAVE	007E	02-0350	1C-0480	1C-0500	1C-0520	1C-0540
			1C-0630	1C-0650	1C-0670	1C-0690
			1C-0910	1C-0940		
BUFFER	0100	02-0360	07-0610	1C-1770		
COLD	2004	03-0070	05-0050			
RESTR	2031	02-0370	07-1040	1D-0630		



SETSYR	2514	07-0110	1E-0060	1E-0510	1E-0610	
DADSR	2526	07-0240	1E-0270	1E-0820	1E-1020	
DADXR	2528	07-0250	1E-0290			
DADAR	252A	07-0260				
CLDCRL	253E	07-0420	03-0070	07-0520		
GETDAY	2547	07-0520	03-0050			
GETDYQ	254C	07-0540	07-0580			
GETDYR	255C	07-0610	07-0650			
TEKST	2567	07-0710	07-0540			
ENDPAG	257B	07-0970	0C-0050			
ENDPGQ	257F	07-0990	07-1020	1D-0770		
ENDPGR	2589	07-1030	07-1000			
ENDPGS	258C	07-1040	07-0980			
TCRLF	258F	07-1090	07-1030	1C-0800	1F-0590	1F-1080
TCRLFQ	2591	07-1100	07-1120			
PRTID	2598	07-1190	19-0160			
TEXT	259F	07-1260	1F-1130			
PRSYM	25A4	02-0380	1E-0440	1F-0340		
SETSY	25E6	02-0390	1D-0840	1E-0420	1F-0260	
MAIN	25F8	09-0050				
MAINR	25FB	09-0060	1C-0180			
YSNOR	2797	02-0400	1F-1190			
MESSY	27A0	02-0410	1F-0710	1F-1240		
DADS	27C1	02-0420	1D-1150	1E-0680	1E-0870	1F-0410
DADX	27C3	0E-0050	1D-1170			
FNDSDL	2837	0F-0050				
FNDSYM	2837	02-0430				
ADTABL	2894	11-0050				
ADTBLR	2897	11-0060	1C-1250			
GETARG	298B	02-0440	1C-0390			
OKSQ	29B3	12-0060	1C-1780			
MESSG	2C0A	02-0450	1D-0160	1D-0330	1F-0940	
HEXAX	2DC9	02-0460	1E-0500	1F-0190	1F-0400	1F-0770
HEXOUT	2DCD	02-0470	07-1190	1F-0090	1F-1070	
CRLF	2DE7	02-0480	07-0430	07-1010	07-1100	1D-0590
			1F-0530			
HEXSP	2DEB	02-0490	1F-0740			
OUTSP	2DEE	02-0500	07-1200	1D-0220	1D-0230	1D-0300
			1D-0310	1E-0770	1F-0050	1F-0060
			1F-0840	1F-0850	1F-0920	1F-1000
			1F-1110	1F-1180		
OUTCH	2DF0	02-0510	07-0550	1C-0300	1D-0190	1D-0260
			1D-0360	1F-0110	1F-0880	1F-0970
			1F-1140			
BUFIN	2E41	02-0520	04-0050	07-0590	1C-0310	
OUTPUT	2EA0	02-0530	1C-0890	1C-0930		
SOURCM	2EA3	19-0070				
SOURCE	2EA4	19-0080				
SOURCE	2EA5	19-0090				
SYMBOL	2EA6	19-0100	1F-0720			
SYMF	2EA7	19-0110				
OBJECT	2EA8	19-0120				
SYMXR	2EA9	19-0130	07-0160	1C-0160		
SYMMAX	2EAA	19-0140	1C-1540			
ERID	2EAC	19-0160	1A-0050			
RESSYM	3390	1C-0100	09-0050			
SPECIN	33A4	1C-0250	0A-0050			
NOFUNT	33B1	1C-0310	1C-0260	1C-0280		
GTARG	33B5	1C-0380	0D-0050	10-0050		
PSSXLD	33BE	1C-0460	1C-0380			

PLSXLO	33D1	1C-0620	1C-0400			
MTCRLF	33E4	1C-0780	13-0050			
MTCRLQ	33EB	1C-0810	1C-0790			
OUTMPD	33EC	1C-0890	18-0050			
OUTPDQ	33F3	1C-0920	1C-0950			
INSID	33FD	1C-1040	11-0050			
STRRST	3429	1C-1310	1C-1160	1C-1750		
INSXLO	344A	1C-1500	1C-1110	1C-1310	1C-1340	1C-1370
			1C-1400	1C-1710		
INSXLR	345B	1C-1580	1C-1510	1C-1550		
STRXRF	345C	1C-1650	12-0050			
STRXFQ	3472	1C-1760	1C-1660			
TOPPRT	3500	1D-0130	14-0050			
TOPPTQ	3506	1D-0160	1D-0210			
TOPPTR	3513	1D-0220	1D-0180			
TOPPTS	351B	1D-0250	1D-0290			
TOPPTT	352B	1D-0320	1D-0370			
TOPPTU	3539	1D-0380	1D-0140	1D-0350		
TABLE	353C	1D-0460	06-0050			
TABLEQ	3546	1D-0510	1D-0480	1D-0620		
TABLER	3560	1D-0630	1D-0540			
TABLES	3563	1D-0640	1D-0500			
TABLET	357B	1D-0740	1D-0700			
TABLEU	357E	1D-0750	1D-0730			
SORTQ	3585	1D-0840	1D-0670	1D-1200		
LOOPF	3588	1D-0850	1D-1180			
NEXTY	358F	1D-0890	1D-0950			
LOOPB	359E	1D-0970	1D-0870			
MOVEX	35AB	1D-1040	1D-0910			
MOVET	35AD	1D-1050	1D-1120			
LESS	35BE	1D-1150	1D-0920	1D-0960	1D-1030	
SORTR	35CD	1E-0060	1D-0710	1E-0320		
LOOPTR	35D0	1E-0070	1E-0300			
NEXTYR	35D2	1E-0080	1E-0140			
MOVXR	35E1	1E-0160	1E-0100			
MOVETR	35E3	1E-0170	1E-0240			
LESSR	35F4	1E-0270	1E-0110	1E-0150		
PRTXRF	3603	1E-0420	1D-0720			
PRTXFQ	3609	1E-0440	1E-0690	1E-0880		
PRTXFR	3644	1E-0710	1E-0660	1E-0800		
PRTXFS	3648	1E-0730	1E-0850			
PRTXFT	3651	1E-0770	1E-0790			
PRTXFU	3659	1E-0810	1E-0740			
PRTXFV	3666	1E-0860	1E-0830			
PRTXFW	366E	1E-0890	1E-0700			
FNDXRF	366F	1E-0950	1E-0590	1E-0650	1E-0840	1E-1030
FNDXFQ	367C	1E-1020				
MAYBE	3683	1E-1050	1E-1010			
GOGO	3692	1E-1130				
NOGO	3695	1E-1150	1E-1040	1E-1080	1E-1120	
PRTSYM	3698	1F-0050	1E-0600	1E-0810		
PRNT	36B7	1F-0260	1D-0740			
PRNTQ	36BD	1F-0280	1F-0330			
PRNTR	36C1	1F-0300	1F-0420			
PRNTS	36CB	1F-0340	1F-0310			
PRTLIN	36DF	1F-0490	1E-0670	1E-0750	1E-0860	1F-0320
OKLIN	36E7	1F-0530	1F-0500			
PRTSP	36EB	1F-0590	1E-0430	1F-0270	1F-0510	
PRTSQ	36F9	1F-0700	1D-0510	1F-0600		
PRTSR	370E	1F-0840	1F-0610			

PRTSRA	3716	1F-0870	1F-0910
PRTSRB	3725	1F-0940	1F-0990
PRTSRC	3732	1F-1000	1F-0960
QUEST	3745	1F-1110	0B-0050
QUESTQ	374A	1F-1130	1F-1170
QUESTR	375F	1F-1220	1F-1200